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CULTURAL EDUCATION OF A PHYSICIAN

WILLIAM W. ROOT LECTURE OF ALPHA OMEGA ALPHA HONOR MEDICAL SOCIETY

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In an address delivered at the commencement of the Medical School of Harvard University at the Medical College in Boston, March 9, 1870 the Honorable Preston Peabody [1] spoke to the graduating class; he stressed particularly the importance of general culture:

To your professional knowledge you need to add general culture as wide and thorough as your special studies and labors will permit. You owe this to yourselves, to your brethren, to your calling. You owe it to yourselves; for the man who confines himself to a single department, however noble it may be, sacrifices his own intellectual manhood; moves, not in a self-returning circle, but in a constantly diminishing spiral, and from year to year becomes less, and not beautifully less. You have a vital interest in poetry, literature and art—in all that is beautiful and grand in the works of God and man. You need them for recreation, solace, growth. You need them to bring you into due relation with the cultivated minds around you. You need them even for the highest professional success and reputation. No man can be great in his own profession who has not a vigorous intellectual life outside of it, beyond it, above it.

Since the time when medicine began to evolve from mysticism into science, educators have been concerned by the possibility that the trend toward pure science would lose for the physician that art which made him a humanitarian. The search continues still somewhat aimlessly, for a test of character that will admit to medical schools or to medical practice only men of undoubted integrity, idealism and charitableness. As yet aptitude tests are in an "early experimental stage." Certainly there is as yet no method of determining the attributes of character or mentality that stamp the man who, on entrance into the study of medicine, will persist through the demands of the modern curriculum, now speeded and intensified. Scientists hint vaguely of the scientific type of mind, but they recognize it by its results and not by any established standards useful for measurement before the results are achieved.

The educators have sought to aid the process of development of the ideal physician by attention to the premedical curriculum, hopefully attempting, by compulsory courses in English letters and composition, in language, in biology, even in sociology, philosophy, political economy, music appreciation, art and the drama, to implant the seeds of culture. The feeling persists that a cultural background is a necessity for the physician.

The report of the Commission on Graduate Medical Education,[2] published in 1940, emphasizes the importance of appreciation of those beauties and delights that are to be found only in cultural subjects. The report says:

Medicine is one of the learned professions and this fact presupposes that each physician has acquired a broad cultural as well as scientific background and that because of this he is able to take his proper place in the community, both as a wise counselor to his patients and as an informed and active citizen. Too frequently the heavy schedule required in the college and medical school years, which becomes even more exacting during the internship and residency, and the large proportion of the practitioner's time that he must devote to study and attendance at professional meetings in order to keep abreast of medical advances make it almost impossible for a physician to nourish his cultural interests. The man who neglects these interests lacks one important part of his preparation for life. The truly great physician somehow finds enough time, in spite of his busy practice, to develop various interests that add to his richness and depth. Medical educators should set aside time in the curriculum for cultural opportunities and should encourage students to take advantage of these opportunities, even though they make no direct contribution to their knowledge of medicine. By this means, they will doubtless stimulate in many men a lasting interest in these broader fields, an interest that will carry over into their years of active practice.

Some medical educators have accepted as students in the medical school, a few outstanding candidates who have majored in the humanities, hoping that these men will bring new viewpoints to bear on many of the problems of medicine. Other medical educators might follow this example. While it is realized that this need of broader cultural education for physicians is not, strictly speaking, a problem of graduate medical education, nevertheless it is important to any complete concept of graduate and postgraduate training.

The report emphasizes, moreover, the need of culture for the intern who has passed from the stage of concentration on wholly medical subjects to a field in which he is partially engaged in medical practice. It says:

Equally important is the opportunity for the intern to continue his interest in the humanities and in cultural activities. The intern who has a real appreciation of music, philosophy or first editions should be able to find at least a few minutes each week to pursue these avocations.

Read before the Alpha Omega Alpha Honor Medical Society, Atlantic City, N. J., June 11, 1942.

1. Peabody, Andrew Preston: What the Physician Should Be: An Address Delivered at the Commencement of the Medical School of Harvard University, Medical College, Boston, March 9, 1870, published by request of the Faculty, Cambridge, Welch, Bigelow and Company, Printers to the University, 1870.

2. Graduate Medical Education, Report of the Commission on Graduate Medical Education, University of Chicago Press, 1940.

These quotations indicate concepts of cultural education. The Oxford Dictionary refers to culture only as "the training and refinement of mind, tastes and manners, or the intellectual side of civilization." In his witty work on "Modern English Usage," Fowler [3] calls attention to what has happened to German kultur by referring the reader simply to the word "frightfulness." Many a distinguished colleague with whom I have spoken has indicated his concept of a cultural education as one which involves emphasis on Latin, Greek, English letters and similar subjects.

Thomas Henry Huxley,[4] in his essay on "Science and Culture," said:

I hold very strongly by two convictions. The first is, that neither the discipline nor the subject matter of classical education is of such direct value to the student of physical science as to justify the expenditure of valuable time upon either; the second is, that for the purpose of attaining real culture, an exclusively scientific education is at least as effectual as an exclusively literary education. . . .

But for those who mean to make science their serious occupation; or who intend to follow the profession of medicine; or who have to enter early upon the business of life; for all these, in my opinion classical education is a mistake; and it is for this reason that I am glad to see "mere literary education and instruction" shut out from the curriculum, . . . seeing that its inclusion would probably lead to the introduction of the ordinary smattering of Latin and Greek.

Nevertheless, I am the last person to question the importance of genuine literary education, or to suppose that intellectual culture can be complete without it. An exclusively scientific training will bring about a mental twist as surely as an exclusively literary training. . . .

French and German, and especially the latter language, are absolutely indispensable to those who desire full knowledge in any department of science. But even supposing that the knowledge of these languages acquired is not more than sufficient for purely scientific purposes, every Englishman has, in his native tongue, an almost perfect instrument of literary expression; and, in his own literature, models of every kind of literary excellence. If an Englishman cannot get literary culture out of his Bible, his Shakespeare, his Milton, neither in my belief, will the profoundest study of Homer and Sophocles, Virgil and Horace, give it to him.

At the same period the subject of cultural education was disturbing many a leader in the field of medicine. Sir Thomas Clifford Allbutt,[5] who gave the introductory address at St. George's Hospital in 1889, took as his subject "The Need for a Liberal Education." He spoke of a university as "a permanent embodiment of the ideal of wisdom as opposed to technical furniture —of the ideal of mental culture as opposed to the collection of tips and devices in memory." Then, in an address given in 1892, he said:

It is sad to hear it commonly said that the day of the learned physician is past, that they are gone with periwigs and bric-a-brac. And I have had already to observe to my pain that the Cambridge medical student of today is by no means "learned"; that too he often thinks loosely, and that he does not always write even the English of the gentlemen who do the Fires and the Murders for the country journals.

Largely as a result of this lecture the question of introducing an essay into the tripos examination in order to improve the facility of writing English was discussed at length throughout England.

An important defender of literary education as opposed to pragmatic studies for cultural purposes is Bertrand Russell.[6] Writing of "The Place of Science in a Liberal Education," he said:

From the point of view of training the mind, of giving that well informed, impersonal outlook which constitutes culture in the good sense of this much misused word, it seems to be generally held indisputable that a literary education is superior to one based on science. Even the warmest advocates of science are apt to rest their claims on the contention that culture ought to be sacrificed to utility. Those men of science who respect culture, when they associate with men learned in the classics, are apt to admit, not merely politely, but sincerely, a certain inferiority on their side, compensated doubtless by the services which science renders to humanity, but none the less real.

After the Civil War medical education reached an exceedingly low level in this country. President Eliot of Harvard, quoted by Florence Sabin [7] in her life of Franklin P. Mall, pointed out that "There were no requirements for admission to our medical schools. To secure admission a young man had nothing to do but to register his name and pay a fee. In consequence hundreds of young men joined the medical schools who could barely read and write." President Eliot described them as young medical practitioners who were "uncultivated men with scanty knowledge of medicine and surgery, who had had opportunity for but a small amount of observation by the bedside and but little experience in hospitals."

In 1905 the creation of the Council on Medical Education of the American Medical Association and the searching investigation of medical education by Abraham Flexner led to renewed emphasis on basic education as part of the preparation of the student for medical studies. The leadership of Dr. Franklin P. Mall, eminent anatomist, and of William Henry Welch of the Johns Hopkins group, who have recently reflected those years in their autobiographies, came to be widely recognized throughout American educational circles. But the essays of Sir William Osler were probably more significant than many other contributions in directing the trend of basic education into sound cultural lines. In his essay "The Master Word" Osler [8] wrote:

Professional work of any sort tends to narrow the mind, to limit the point of view and to put a hall-mark on a man of a most unmistakable kind. On the one hand are the intense, ardent natures, absorbed in their studies and quickly losing interest in everything but their profession, while other faculties and interests "rust" unused. On the other hand are the bovine brethren, who think of nothing but the treadmill and the corn. From very different causes, the one from concentration, the other from apathy, both are apt to neglect those outside studies that widen the sympathies and help a man to get the best there is out of life. Like art, medicine is an exacting mistress, and in the pursuit of one of the scientific branches, sometimes, too, in practice, not a portion of a man's spirit may be left free from other distractions, but this does not often happen. On account of the intimate, personal nature of his work, the medical man, perhaps more than any other man, needs that higher education of which Plato speaks—"that education in virtue from youth upwards which enables a man eagerly to pursue the ideal perfection."

3. Fowler, H. W.: A Dictionary of Modern English Usage, Oxford at the Clarendon Press; London, Humphrey Milford, 1926.
4. Huxley, Thomas Henry: Science and Culture, in Saidla, Leo E., and Gibbs, Warren E.: Science and the Scientific Mind, New York, McGraw-Hill Book Company, Inc., 1930.
5. Rolleston, Sir Humphry Davy: Right Honourable Sir Thomas Clifford Allbutt: A Memoir, London, Macmillan Company, 1929.
6. Russell, Bertrand: The Place of Science in a Liberal Education, in Saidla and Gibbs: Science and the Scientific Mind.
7. Sabin, Florence: Franklin P. Mall, Anatomist, Baltimore, Johns Hopkins Press, 1934.
8. Osler, Sir William: The Master Word in Medicine, an address to medical students on the occasion of the opening of the new buildings of the Medical Faculty of the University of Toronto, Oct. 1, 1903, from his collected reprints, 1902-1907, v, no. 248.

THE CULTURAL EDUCATION OF MEDICAL LEADERS OF THIS GENERATION

Since the views of leaders in American medicine on the subject of cultural education obviously must have been conditioned largely by the type of cultural education which they themselves had, I have referred to some of the biographies and autobiographies which have recently become available as a form of literary research which might yield data leading toward a scientific conclusion. The study has been one of enjoyment, stimulation and inspiration. Many of these great leaders I have known personally; with others I have corresponded at various times. The record of their lives is varied and fascinating.

In "The Life of Sir William Osler" by Harvey Cushing[9] appears this brief note about a teacher of Sir William Osler to whom Osler himself credited much of the cultural education that he had. The head prefect of the school called Weston, some fifty years after the period in which he had been a favorite teacher of Sir William Osler, wrote:

As a boy I had the common experience of nifty years ago—teachers whose sole object was to spoonfeed classes, not with the classics but with syntax and prosody, forcing our empty wits, as Milton says, to compose "Theames, Verses and Orations" wrung from poor striplings like blood from the nose, with the result that we loathed Xenophon and his ten thousand, Homer was an abomination, while Livy and Cicero were names and tasks. Ten years with really able Trinity College, Dublin, and Oxford teachers left me with no more real knowledge of Greek and Latin than of Chinese, and without the free use of the language as keys to great literatures.

WILLIAM HENRY WELCH

William Henry Welch influenced profoundly the cultural education of many an American physician. From the distinguished biography by Simon and James Thomas Flexner[10] we learn:

In his later years Welch ascribed the sudden flowering of his interest in medicine not so much to the studies he pursued as to the personality of his teachers. "One can decry the system in those days," he said, ". . . but the results were better than the system. The College of Physicians and Surgeons stood then, as it has always stood, in the front rank of American medical schools. Our teachers were men of fine character, devoted to the duties of their chairs, they inspired us with enthusiasm, interest in our studies and hard work, and they imparted to us sound traditions of our profession; nor did they send us forth so utterly ignorant and unfitted for professional work as those born of the present, greatly improved methods of training and opportunities for practical study are sometimes wont to suppose."

J. M. T. FINNEY

The recent death of Dr. J. M. T. Finney took from American medicine one of its most cultured leaders, a man of broad vision, recognized skill and wide associations. Of his early training he[11] said:

It is interesting to look back now and try to evaluate the most potent influences and their effect upon my character. What stands out in my mind after all these years is not so much what I learned from my studies, but what I gained from more or less intimate personal contact with real human men, men who were sufficiently well educated themselves to appreciate true values in education and to stimulate in the minds of their students the desire to attain those values. We are all in a measure "copy cats." How often do we see reflected, unconsciously perhaps, in students certain idiosyncrasies of their teachers—it may be methods of thought, modes of expression, mannerisms, poses or what not.

WILLIAM SYDNEY THAYER

The views of William Sydney Thayer, a former president of the American Medical Association, a student of the classics and himself a poet of no mean ability, should be significant. Thayer was a natural linguist and scholar. Besides the ancient languages he read and spoke and could think in French, German, Italian and Russian. Of his cultural education, he[12] said:

I am one of those who believe earnestly that a broad general training, not only in the natural sciences, but in ancient as well as in modern languages and mathematics, is important for him who would study medicine if he is to be a broad-minded and scholarly man.

CHEVALIER JACKSON

Known as a scholar, a distinguished inventor, an artist of recognized ability and as a recipient of the Distinguished Service Medal of the American Medical Association, Chevalier Jackson's record of his own cultural education is especially interesting. In his autobiography he says:[13]

Next to drawing my greatest interest in school work was in physiology, geography, Latin, Greek, English and mathematics, about in the order given. History, telling about what the kings, dictators, rulers and politicians did, was uninteresting.

VICTOR C. VAUGHAN

Turning to the West, I submit a few selections from the autobiography of Victor C. Vaughan:[14]

While nominally I had my schooling at Hazel Hill, I received the better part of my education at home. My wise mother did not pretend to dictate my instruction. She simply placed the books she desired me to read within my reach and supplied no others. Scott, Dickens, Thackeray.

"Poor training" a present day educator would say for one whose adult life was to be devoted to science. This may be true, but I am reciting facts. I cannot deny that my scientific work might have been more productive had my early training been different. . . .

In 1917 Dean West of Princeton University held a day for glorification of the classics. He wished to see these studies restored to their former position in the curricula of our colleges and universities, and I was in sympathy with him in this particular.

Although my adult life has been given to the sciences, I wish to testify that the first author to stimulate the pyramidal cells of my cerebral cortex was old Virgil, and even now in my old age when I seek mental recreation there is only one book which I prefer to Virgil and that is Dryden's translation, which I read with less effort.

BERKELEY MOYNIHAN

Americans who for many years admired the skilful oratory of Sir Berkeley Moynihan should enjoy particularly these sections from the recent biography by Donald Bateman,[15] which are more than explanatory of the Moynihan technic in public address:

Of extramural reading he did little; he had no time for it. His love of literature developed later. Yet though his taste

9. Cushing, Harvey: The Life of Sir William Osler, Oxford University Press, 1940.
10. Flexner, Simon, and Flexner, James Thomas: William Henry Welch and the Heroic Age of American Medicine, New York, Viking Press, 1941.
11. Finney, J. M. T.: A Surgeon's Life, New York, G. P. Putnam's Sons, 1940.
12. Reid, Edith Gittings: The Life and Convictions of William Sydney Thayer, Physician, Oxford University Press, 1936.
13. Jackson, Chevalier: The Life of Chevalier Jackson, New York, Macmillan Company, 1938.
14. Vaughan, Victor C.: A Doctor's Memories, Indianapolis, Bobbs-Merrill Company, 1926.
15. Bateman, Donald: Berkeley Moynihan, New York, Macmillan Company, 1940.

was still unformed, its scaffoldings were visible. In Shakespeare's sonnets he unearthed a sympathetic mirror of his thoughts; in them he found a satisfaction that communion with his friends did not promote. To memorize them was easy; to repeat them delicious. He saw the spring in them, and not as yet the autumn they concealed—that was for the future.

He had, even in those early days, an ardent love of words. Dulcet phrase and mellifluous adjectives entranced him. They matched the sweet depths of his voice. No less for their music than their meaning did he cherish them. Except within the confines of his home he had no chance for recitation; his family were the only audience he could then command. But, from his first encounter with the sonnets, his devotion was sealed; he became the acolyte before the shrine of words.

The only other seas of his literary voyaging were the varied oceans of the Bible. . . . It was lovely English of the Bible that excited him; he did not then explore its philosophic content. But those words, velvet and resonant—how he loved them. In them he had the artist's apprehension of beauty—painful, intangible, ethereal.

For music, strangely, he had but little ear. . . .

In pictorial art he had no interest, nor such have medical students as a rule. . . .

When he could afford it he went to the theatre.

ARTHUR E. HERTZLER

Consider a brief statement by the eminently pragmatic Arthur E. Hertzler,[16] author of the widely read "Horse and Buggy Doctor":

The course of study in those days consisted chiefly of Latin, Greek, mathematics and English. . . . All I remember about Greek is that you learn one verb, all the rest are irregular, that Darius had three huge sons and that buzzard meat tastes like venison only sweeter. Nevertheless were I to begin the study of medicine again I should choose the same courses in Latin and Greek as a preliminary. For though, like Shakespeare, I had small Latin and less Greek, they made terminology more interesting and intelligible. . . .

Four years in the academy equaled what is about the first two years of the colleges of today. Better training in literature than most college graduates (three years of English composition and rhetoric—our English teacher was a Canadian who had the idea that English was a good language to learn); mathematics as far as differential calculus; German, most grammar and time spent in the utterly futile attempt to read Wallenstein and several other works of the same kind—everything except what I would need in the future. I never could understand poetry or drama even in English and the German was a nightmare.

LEWELLYS F. BARKER

While Lewellys Barker [17] tells us in his recently published "Time and the Physician," an autobiographic work, little of his own cultural education, he gives us some thoughts on the subject in his book on "The Young Man and Medicine" [18] which are definitely apropos to our purpose:

Another fundamental human need is connected with the activity of the aesthetic judgment. Man has a desire for the beautiful. He loves to create beautiful things himself, and he derives satisfaction, also, through the enjoyment of beauty in nature and in man, beauty in his own works, or beauty in the works of others. . . .

The young man in medicine in his student days can scarcely fail to do better work, if in that work he strive not merely to acquire knowledge but also to satisfy his aesthetic sense. As a teacher in the medical school I soon learned to look with favour upon the student who in the anatomical laboratory made a "beautiful" dissection, or who, in the pathological institute, stained his sections of tissue so perfectly that they delighted me, or who, in the clinic, made physical examinations so skilfully and kept records with such order and accuracy that they charmed the observer. There are exceptions, of course, but, in general, it will be found to be true that the pupil who works in the spirit of the true artist, who knows how to delight in the work that he does for its own sake, who, besides being interested in content, loves perfection of form, is likely to go far. But even though he go not far, he has experienced on his way satisfactions of his need of beauty that are not to be despised.

And the same considerations apply to the work of the medical man after graduation from the medical school. The art of medical practice, the art of medical teaching, the art of medical discovery, and the art of medical writing are likely to be best promoted and to be most greatly enjoyed by those who pursue them in compliance with the urge of their aesthetic motives.

HANS ZINSSER

Among the most cultured of American investigators, scientists and physicians was Hans Zinsser. In his intimate and revealing biography "As I Remember Him" Zinsser [19] gave much of the credit for his cultural education to some of his teachers in the letters and in science who had had a tremendous effect on his personality. Among the most revealing are the following paragraphs:

George Edward Woodberry was at that time best known for his poetry. I say "at that time" because, as I judge him now, I believe that his ultimate place—a high one in American letters—will rest on his prose writings, his critical essays, and his Taormina, all of which combine distinction and color of style with great learning and a sensitiveness to beauty which mark him as a poet writing prose. Woodberry was of the tradition of Shelley, Wordsworth and Coleridge. His mind was deeply saturated with European culture and the art of Greece and of Italy. . . .

Whatever may be the eventual position of Woodberry in American letters—an estimate which I am not competent to make—he was unquestionably one of the greatest teachers this country has seen, inspiring with his own passionate sincerity and sensitive perceptions a large and diverse group of young men, few of whom, whatever their subsequent occupations, ever lost entirely the imprint of his personality. . . .

The destinies of man are guided by the most extraordinary accidents. In my sophomore year, while in the Woodberrian poetic exaltation, and feeling much of the time like a young Shelley, I threw a snowball across the campus at a professor emerging from the Natural Science Building. It was a prodigious shot, a good hundred yards, I think. I hit him in the ear, knocked his hat off, and had time to disappear around the corner. I had nothing against him. It was an impulse, and a happy one, because I became guiltily conscious of him, thereafter, and eventually I took one of his courses, as a sort of apologetic gesture. He happened to be both an anthropologist of note and a philosopher, and it was he who awakened in me the realization of the philosophical implications of scientific fact. There were great teachers of science at Columbia in those days, and the junior year—largely owing to the inspiration of the man whom I had hit in the ear—found me, without cutting loose entirely from the Department of Comparative Literature, feeling as though I had suddenly entered a new world of wonders and revelations, on the top floor of Schermerhorn Hall under the reign of Edmund B. Wilson and Bashford Dean. . . .

My college education, to make a long story short, then consisted of Woodberry, Wilson and Dean—thus again affirming the truism that one is trained by men and not by curricula. The remark about the superb educational value of sitting on

16. Hertzler, Arthur E.: The Horse and Buggy Doctor, New York, Harper & Brothers, 1938.
17. Barker, Lewellys F.: Time and the Physician, New York, G. P. Putnam's Sons, 1942.
18. Barker, Lewellys F.: The Young Man and Medicine, New York, Macmillan Company, 1928.
19. Zinsser, Hans: As I Remember Him: The Biography of R. S., Boston, Little Brown & Co., 1940.

a log with Mark Hopkins on the other end of it is quite correct in principle—though from what I have read of that gentleman's philosophical views and information, I should have picked some one else for my log.

DIRECTED READING

Hardly one of the counselors who would guide us to culture but recognizes the importance of properly directed reading for the continuous improvement of culture. Thus Sir William Osler [20] in his "Aequanimitas and Other Addresses," published in Philadelphia in 1904, wrote:

> For the general practitioner a well used library is one of the few correctives of the premature senility which is so apt to overtake him. Self centered, self taught, he leads a solitary life, and unless his every day experience is controlled by careful reading or by the addition of a medical society, it soon ceases to be of the slightest value and becomes a mere accretion of isolated facts, without correlation. It is astonishing with how little reading a doctor can practice medicine, but it is not astonishing how badly he may do it.

Osler had, of course, his favorites among the writers of all time. For medical students he suggested a bedside library saying:

> A liberal education may be had at a very slight cost of time and money. Well filled though the day be with appointed tasks, to make the best possible use of your one or of your ten talents, rest not satisfied with his professional training but try to get the education, if not of a scholar, at least of a gentleman. Before going to sleep read for half an hour, and in the morning have a book open on your dressing table. You will be surprised to find how much can be accomplished in the course of a year. I have put down a list of ten books which you may make close friends. There are many others; studied carefully in your student days will help in the inner education of which I speak.
>
> I. Old and New Testament.
> II. Shakespeare.
> III. Montaigne.
> IV. Plutarch's Lives.
> V. Marcus Aurelius.
> VI. Epictetus.
> VII. Religio Medici.
> VIII. Don Quixote.
> IX. Emerson.
> X. Oliver Wendell Holmes (Breakfast Table Series).

Sir Thomas Browne's "Religio Medici" and Rabelais were his special favorites. In the library at McGill, a memorial to Osler, one may see his great collection of various editions of these two literary masterpieces.

Again in "The Alabama Student and Other Biographical Essays," published in 1908, he [21] emphasized his devotion to these writings:

> For the student of medicine the writings of Sir Thomas Browne have a very positive value. The charm of high thoughts clad in beautiful language may win some readers to a love of good literature; but beyond this is a still greater advantage. Like the "Thoughts of Marcus Aurelius" and the "Enchiridion of Epictetus" the Religio is full of counsels of perfection which appeal to the mind of youth, still plastic and unhardened by contact with the world. Carefully studied, from such books come subtle influences which give stability to character and help to give a man a sane outlook on the complex problems of life. Sealed early of this tribe of authors, a student takes with him as compagnons de voyage lifelong friends whose thoughts become his thoughts and whose ways become his ways. Mastery of self, conscientious devotion to duty, deep human interest in human beings—these best of all lessons you must learn now or never: and these are some of the lessons which may be gleaned from the life and from the writings of Sir Thomas Browne.

Innumerable suggestions have been made as to the type of reading that the physician should use for the improvement of his cultural education. An earnest student once asked the great Sydenham for advice as to what he should read to lay a sound foundation in medicine. To this request Sydenham replied "Don Quixote."

As a protest against a wholly technical education, Raymond Pearl in his selected list of reading for cultural education of the scientist also emphasized the lack of reading as one of the reasons for our failure to produce culture in our medical students. Raymond Pearl [22] said:

> In consequence of the widely prevailing pedagogical theory that needlework, jig-sawing, salesmanship and many other kindred academic disciplines are of at least equal cultural and intellectual value in the training of our youth to the study of Greek or Latin or mathematics or chemistry; coupled with the permission, if not active encouragement to the undergraduate to specialize during the state of his mental infancy, it results that when the young things begin serious graduate work a solidly grounded general background upon which to build a sound specialism is precisely what, generally speaking, they most completely lack.

President Robert M. Hutchins of the University of Chicago and Mortimer Adler and many others have prepared lists of the books that should form the basis of culture. President Eliot of Harvard had his five foot shelf. The American Library Association developed a list and presented a set especially bound to the President in the White House. The average physician will be amazed on personal consultation to discover how slender an intimacy he has with most of the volumes that are included in these selections. From this point of view alone, the cultural education of the modern physician is lacking.

THE BASIS OF A CULTURAL EDUCATION

I have indicated by these few citations the belief of practically every distinguished leader who has approached the subject that directed reading is a vital part of a cultural education. The list prepared by Sir William Osler includes books to which we turn again and again and which provide new values with reading and rereading. The writings of Mark Twain, particularly "Huckleberry Finn," the diaries of Samuel Pepys, Walpole and Evelyn, the Elizabethan dramatists and poets, specially Dryden, the startling wisdom of Samuel Johnson, the essays of Emerson have been emphasized so frequently by so many guides to that which is best in cultural reading that reemphasis is hardly necessary. And I would recommend personally for stimulation and inspiration the famous biographies and autobiographies that I have already mentioned. Add to them Vallery-Radot's "Life of Pasteur," Sir Rickman Godlee's "Life of Lister," the biography of Metchnikoff by his wife Olga, the essays of Stephen Paget, of Harvey Cushing and of John Chalmers DaCosta. You will find in these more that is thought provoking and beautiful than ever you have dreamed of.

20. Osler, William: Aequanimitas and Other Addresses, Philadelphia, P. Blakiston's Sons & Co., 1904.
21. Osler, Sir William: The Alabama Student and Other Biographical Essays, Oxford University Press, 1908.
22. Pearl, Raymond: To Begin With, New York, Alfred A. Knopf, Inc., 1927.

PERSONAL ASSOCIATION

First in importance in cultural education, and as a factor that makes for success in medicine and in life, is early and intimate association with preceptors and teachers who have the ability to inspire. Men of the type of William Henry Welch, Halstead, Ludvig Hektoen, Victor C. Vaughan, Frank Billings, Hans Zinsser and Sir William Osler have had this quality.

Many years ago I studied the records of the graduating classes of three of our greatest universities at a period twenty years after graduation. The number of men who had attained medical fame, either international, national, state or local, could be definitely related to the inspiring teachers with whom they worked and to the kind of contact that they had had with such teachers. Those who associate with preceptors who have achieved fame and leadership secure direction and guidance not only to the scientific technics and methods that they have developed but also, provided the contact is sufficiently intimate, to music, the drama, sport, art, recreation and even training in the art of writing. This is what Zinsser meant by his reference to Woodberry. This too is what made Thayer say ultimately "I have a passion to use the perfect word, the inevitably right sentence." This, it has been noted, is what stamped every pupil of Harvey Cushing with many a mannerism and habit of thought and speech that on occasion out-Cushings the great Cushing himself. These men were not necessarily first in their studies and examinations. Occasionally as with Thayer and Paul Ehrlich they triumphed over recognized failure.

Looking back on his own education, Sir James Mackenzie deprecated the type of education that places emphasis on memory rather than on the power of reasoning. He condemned the trend in our medical education which leads toward the type of teacher who merely repeats what his own teachers taught him and whose pupils merely repeat what he teaches them. Mackenzie [23] said:

> There are two very distinct qualities of the human mind: memory, and the power of reasoning. The earliest to be developed is that of memorizing, and this can be cultivated with great ease. The power of reasoning is quite different, although, no doubt, memory takes a part. When we look at a great number of students, we discover that this power of memory is greatly developed in a few, and that all our educational methods are devoted to its cultivation. Examinations are specially contrived for the purpose of discriminating those with the best memories, and to them all the honours and prizes are given.
>
> The individuals who, on the contrary, possess more of the power of reasoning than their fellows receive no consideration. There are minds which have a difficulty in remembering isolated facts, but if these facts are related in some consecutive manner, they can not only remember them, but also appreciate their bearing on one another. But this type of mind is slow in acquiring knowledge and in our present day methods of education less and less encouragement is given to this type of student.

GAMES, SPORTS AND CULTURE

In Finney's recent autobiography he says all that can be said of games and sports in just a few lines:

> One important lesson that one learns from athletics, especially football, is how to take hard knocks, and when occasion requires, how to give them too. Self restraint along all lines so hard to acquire is a "sine qua non" in order to be successful in any form of athletic sport. The qualities necessary to insure success in athletics are quite as necessary in positions of responsibility in after life: courage, brains, agility of mind and body, ability to think on one's feet, thoroughness, application, diligence, honesty, determination—all of which are summed up in that good old English word "guts."

There are students and physicians who find over the bridge table and on the golf course assets for building character. Invaluable to me have been many of the lessons learned and the associations acquired by these pleasant pathways. They are inordinate consumers of time; but, having tried, as Arnold Bennett suggested, to live always on twenty-four hours a day, it has seemed to me that those whose production is greatest are usually least pressed for time to be spent in cultural pursuits.

WRITING AS A CULTURAL MECHANISM

Previously I have referred to the production of an essay as a part of cultural education, and of Sir Thomas Clifford Allbutt's comment. In his own book, entitled "Notes on the Composition of Scientific Papers," he [24] said that it was his custom to make at least four drafts of a manuscript before it could be considered ready for the printer. His first draft was compiled from notes. Then redundant words, phrases, sentences and paragraphs were deleted. Sentences out of position were removed to better positions; coherence and logical development of thought were tested. In the next revision new thoughts, sentences and paragraphs were inserted and all doubtful meanings were eliminated. In this revision also simplicity was sought and ornamental passages were removed. Finally, after a few weeks, Sir Clifford would read the entire manuscript and make a final revision.

Those who have envied Sir William Osler his beautiful command of English should see the collection of his manuscripts in the Osler room of McGill University. One stage followed closely on another in the preparation of his papers. First were notes of various kinds, written here and there and collected at opportune moments. The first draft was an outline written in long hand. Next came the first typewritten copy with interlineations, transpositions and deletions. Then came a second typewritten copy with evidence of many additional modifications, and finally a third typewritten copy which could be sent to the printer. Even this last copy provided for final corrections.

Quite recently Sir Robert Hutchinson [25] found cause to castigate medical writers for the extraordinary dulness of their productions:

> In considering the quality of medical literature distinct from its quantity one has to distinguish between its content and its form. As regards the content, one is struck by the great excess of facts and the comparative absence of ideas, generalizations and hypotheses; there is, in short, too much observation and recording and too little reflection. Hence much of it is like a heap of bricks without any mortar to hold them together. The power of wide generalization, of course, is very rare, but medical writers might at least show greater imagination, and the lack of this has the sad consequence that much medical literature is deplorably dull. This dulness is the more curious considering that the subject matter is so interesting. . . . It may be contended in reply to all

23. Wilson, R. Macnair: The Beloved Physician: Sir James Mackenzie, New York, Macmillan Company, 1926.

24. Allbutt, Thomas Clifford: Notes on the Composition of Scientific Papers, ed. 3, London, Macmillan Company, 1923.

25. Hutchinson, Sir Robert: Annotations: Dullness of Medical Literature, Bull. Minnesota M. Foundation 3:26 (Nov.) 1941.

this that the style of medical writing is not of much importance because these are read primarily for their matter. Unquestionably this is too superficial a view, for, as Allbutt said, "The man of science ought best to know that style and matter can no more be dissociated than skin and bone; but if we write clumsily, loosely or disjointedly our thoughts are accordingly."

SIGNIFICANCE OF A CULTURAL EDUCATION

I have been more and more impressed of recent years with that trend in medical education which holds the young man strictly in the field of technical study until he has reached the middle years or the ultimate of what Herbert Spencer called the prolongation of infancy. This concentration on technical education which carries young physicians through internship, a residency or assistantship, extra training in anatomy, physiology, pathology and other basic medical sciences and at least two years of additional study and practice before they can be certified has tended to withdraw the interests of young physicians from most of those aspects of life and work which might be included in cultural education.

The physician of an earlier day assumed a position of leadership as a citizen in his community, as a member of medical organizations concerned with public health, the economics of medical practice, general education and similar problems. Today there is a notable lack of young men in the midst of such activities, so that the charge is being made again and again that leadership in American medicine is chiefly by the elders. The elders, because of their social and economic positions, it is charged, are too conservative to lead in a world confronted by tremendous social changes. Recently a talented novelist made one of her characters say that it is about as much use to give advice to an old man as to give a tonic to a corpse. Emphasis on certain types of cultural education prerequisite or associated with education in medicine might serve as a wholesome corrective of this tendency.

CONCLUSION

The prescription for a perfect formula for a cultural education, even if based on an analysis of the considerations that have been here set forth, is difficult to concoct. Obviously the product may be offered in the future, after thorough trial in the laboratory and in the clinic. However, I can suggest some of the ingredients and leave to the physician the determination of the proportions in which they are to be used in the individual case. The menstruum of this prescription will be a literary background, composed of directed and required reading in an emulsion with enjoyable fiction, tales of mystery and poems. The active ingredient must be the classics, associated in a synthesis or perhaps a symbiosis with history, ethnology and anthropology. Golf, bridge and certainly football in excessive doses can be toxic to culture, whereas in homeopathic quantities they may be exceedingly beneficial. For color and flavor add measured quantities of art, music, drama and travel. The preceptor who prescribes will give to the ailing student that intimate personal relationship which breeds confidence, faith and understanding. And on the label write "Take frequently throughout life and at the approach of death!" for this mixture will permit those who have developed an addiction to face the ultimate dissolution with equanimity.

THE TEACHING OF ANESTHESIOLOGY IN THE ARMY

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It is now a well established fact that inadequate anesthesia was responsible for much of the surgical morbidity and mortality of the last war. Such costly lessons must not and will not be repeated in the present conflict. Anesthesiology has progressed tremendously in the last two decades and has been recognized as an indispensable department in the organization of leading university [1] and other civilian [2] hospitals. Its recognition in army hospitals [3] has begun with the designation of a special section for anesthesiology. The organized didactic and clinical instruction by the Army of its personnel in the science of anesthesiology constitutes a further advance. The plan of instruction at Tilton General Hospital is now presented to the medical profession for the first time.

Aside from the mobilization of combat units for the successful prosecution of this war, the various services of the Army have been augmented tremendously by specially trained personnel. This task has been greatly facilitated by the work of the Medical Science division of the National Research Council [4] and its committees, representing the scientific resources of our nation. The Subcommittee on Anesthesiology, consisting of leading anesthesiologists (Drs. Ralph M. Waters, chairman, E. A. Rovenstine secretary, John S. Lundy, Ralph M. Tovell and Lewis S. Booth) was requested, among other things, to propose a teaching program in this specialty for army, navy and public health officers. It was suggested that "refresher courses" for medical officers of these forces might be conducted with the aid of a prepared manual [5] at selected locations throughout the country. The Research Council Advisory Committee has already designated six civilian centers for special courses in anesthesiology. These will begin functioning on or about July 1. In this way the need for trained anesthesiologists for our expanding forces might be alleviated. The demand now for such personnel in the Army is admittedly acute. It appeared that, until the program of the subcommittee in anesthesiology got under way, the problem of providing anesthetists at this and nearby posts might be partially met by offering instructions in anesthesia. Accordingly, a course in the fundamental principles of anesthesiology was begun last July at Tilton General Hospital.[6]

During the past year, four courses of three different types were given in anesthesiology:

Type A. Officers of station or general hospitals: The first two courses were presented to medical officers of

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1. Approved Residencies and Fellowships, Council on Medical Education and Hospitals of American Medical Association, J. A. M. A. **117:** 767 (Aug. 30) 1941.

2. Council on Medical Education and Hospitals, J. A. M. A. **111:** 2213 (Dec. 10) 1938.

3. Walson, Charles M.: Station Hospital Organization, Army M. Bull., No. 54, 3, October 1940.

4. Medical Preparedness, J. A. M. A. **115:** 1641 (Nov. 9) 1940.

5. Fundamentals of Anesthesiology: An Outline, Chicago, American Medical Association, May 1942.

6. Martin, Stevens J.: Instruction in Anesthesiology at Tilton General Hospital, Army M. Bull., No. 60, 108, January 1942.

this post, the Station Hospital and the 210th General Hospital, Fort Dix, N. J., and the Station Hospital, Fort Monmouth, N. J.

Type B. Officers of evacuation hospitals: The third course was given to officers of the 7th Evacuation Hospital.

Type C. Enlisted men of the Medical Corps on mobile auxiliary, surgical teams: The last course was prepared for enlisted men and a nurse of Tilton General Hospital, who were placed on casualty or auxiliary surgical teams. In all courses, the following five basic subjects were discussed:

1. Introduction: purpose, definitions, records, and so on.
2. Pertinent basic sciences.
3. Anesthetic technics and stages.
4. Complications: recognition and treatment; asphyxia, shock, airways, artificial respiration, inhalation and fluid therapy.
5. Operating room hazards: fires, explosions, transport of patients.

TABLE 1.—*Schedule of Lectures for Officers of General and Station Hospitals*

Date	Subject Matter
1st Week	
July 21	Mon.—Introduction: purpose, history, scope of anesthesia, records.
22	Tues.—Cardiovascular system—pertinent normal physiology.
23	Wed.—Cardiovascular system—pathologic physiology—shock.
24	Thur.—Central nervous system—relation to anesthesia.
25	Fri.—Autonomic nervous system—relation to anesthesia.
2d Week	
July 28	Mon.—Respiratory system—physical principles involved, gaseous exchange.
29	Tues.—Respiratory system—chemical and nervous control.
30	Wed.—Respiratory system—pathologic physiology, asphyxia.
31	Thur.—Miscellaneous topics—acidosis, heat stroke versus exhaustion.
Aug. 1	Fri.—Traction reflexes, liver and kidney malfunction.
3d Week	
Aug. 4	Mon.—Chemistry and pharmacology—volatile agents: ether, vinethene, chloroform.
5	Tues.—Chemistry and pharmacology—gases: nitrous oxide, ethylene, cyclopropane.
6	Wed.—Chemistry and pharmacology—local anesthetic agents.
7	Thur.—Chemistry and pharmacology—barbiturates.
8	Fri.—Chemistry and pharmacology—opium derivatives.
4th Week	
Aug. 11	Mon.—Chemistry and pharmacology—alcohols, paraldehyde, inorganic salts.
12	Tues.—Chemistry and pharmacology—non-narcotic drugs and gases.
13	Wed.—Premedication—purposes, principles and technic.
14	Thur.—Regional anesthesia—principles, technics for upper body.
15	Fri.—Thoracic, abdominal and inguinal regions.
5th Week	
Aug. 18	Mon.—Regional anesthesia—perineal and sacral regions and lower body.
19	Tues.—Regional anesthesia—diagnostic and therapeutic blocks.
20	Wed.—Spinal anesthesia—subdural and epidural.
21	Thur.—Rectal, subcutaneous and intravenous anesthesia.
22	Fri.—Stages and signs of anesthesia.
6th Week	
Aug. 25	Mon.—Inhalation anesthesia: the theories and methods employed.
26	Tues.—Resuscitation and oxygen therapy | Demonstration of
27	Wed.—Resuscitation and oxygen therapy } "iron lung."
28	Thur.—Problems in the care and transport of patients.
29	Fri.—Common anesthetic considerations and emergencies.

The general plan of instruction consisted of a series of (*a*) lectures of one to two hours' duration, (*b*) demonstration of various technics with the aid of films or slides and (*c*) practical instruction in various anesthetic procedures. The extent of instruction was necessarily limited by the status of the student and particularly by the function of the unit to which he was assigned.

Thus, in table 1 may be seen the outline of a six weeks lecture course given to medical officers of general or station hospitals. Since specialists in surgery are assigned to such posts, the services of a competent anesthesiologist are indispensable. The outline was designed to cover the field rather broadly. Mimeographed lecture outlines were passed out before each session to serve both as a stimulus for class discussion and also as a guide for future reference and reading outside.[7] While the schedule appears to have covered the subject intensively, only the significant and practical aspects of anesthesiology were emphasized. The subsequent practical work extended for two to ten months. Students were assigned to operative schedules and made the customary preoperative and postoperative rounds on their patients. Pertinent data taken during such rounds or during the interval of anesthesia were recorded on special charts as well as on Form 55-0-1. Such charts were filed after they were used for group discussions of errors, complications and sequelae.

Table 2 shows the lecture outline employed in the instruction of assigned officers of the 7th Evacuation Hospital. Only twelve conferences with demonstrations were held and practical instruction continued for only three weeks. As these officers were members of a mobile surgical unit in which surgery and anesthetic equipment would be of a different character than that found at a station or general hospital, particular emphasis was given to inhalation (open system), intravenous and some regional anesthesia and the technic of endotracheal intubation.

Table 3 shows the lecture outline prescribed for the instruction of seven enlisted men of the Medical Detachment and one nurse assigned to casualty units. In addition to the twelve sessions and demonstrations, personal supervision of the administration of anesthetic agents continued for twelve weeks. Open drop anesthesia was the only technic taught, with emphasis being given to the methods of introducing artificial airways and of detecting and treating respiratory and circulatory complications.

COMMENT

During the course of this teaching adventure there were many trying, encouraging and instructive experiences. These may be briefly summarized as pertaining largely to (1) the students, per se, their initial approach to anesthesia and subsequent development, and (2) the shortcomings and merits of the plan of instruction. Most of the officer students appeared to have the preconceived idea that modern anesthesia was still concerned only with the mastering of technics. This notion was not forgotten until lectures were given on pertinent basic sciences, pathologic physiology and the applications to clinical anesthesia. A more wholesome respect for anesthesia was then assumed as well as a more interested and mature approach to the field. It appeared obvious many times that the lack of knowledge of the fundamental sciences was largely responsible for their inability to appreciate the changing physiology of an anesthetized patient. Because of this the basic sciences were emphasized with added fervor in subsequent

7. Martin, Stevens J.: Fundamental Principles of Anesthesiology, 1941.

courses. This procedure eliminated one of the many important shortcomings of the first course of instruction. The emphasis on pathologic physiology, its direct clinical application and the elimination of controversial subjects and finer but seldom used technics greatly improved the later courses.

It has been the experience at this post that inhalation anesthesia more than any other method was particularly instrumental in illustrating and emphasizing not only anesthesia and its stages per se but also the basic pathologic physiology underlying some of the significant respiratory and circulatory complications. Because of this fact and particularly because some of the students will be called on in combat areas to resuscitate injured patients showing similar complications, inhalation anesthesia was stressed more than any other technic.

While the number of students who attended lectures in the four courses exceeded seventy-one, only eleven officers and seven enlisted men were given practical instruction. Four medical officers were from Tilton General Hospital and remained on the anesthesia staff after their formal instruction. One each came from the 210th General Hospital, and Station Hospital at Fort Monmouth, N. J., and Station Hospital, Fort Dix, N. J. The officer at the last named post is now chief of the Section on Anesthesia and is conducting a course in anesthesia at his post. The remaining ones are now on foreign duty. It will be interesting to learn of their experiences and of their continued development as anesthesiologists.

Mimeographed lecture outlines [5] of the course prescribed for officers of station and general hospitals have been requested by many anesthesiologists contemplating instruction of their assigned army or navy personnel. Thus far, sets have been sent to nine medical officers in charge of anesthesia at general hospitals and to twenty-one colleagues in civilian practice at various institutions. It is hoped that these anesthesiologists have similarly enjoyed the pleasant task of instructing officers to safeguard our armed forces by providing safe and satisfactory anesthesia and avoiding its complications and hazards.

TABLE 2.—*Schedule of Lectures for Officers of Evacuation Hospitals*

Date	Subject Matter
Feb. 18	Wed.—Introduction: purpose, history, scope of anesthesia, records.
20	Fri.—Pertinent normal physiology of the cardiovascular, respiratory and central nervous systems.
21	Sat.—Pertinent pathologic physiology: shock, cyanosis, asphyxia, hypoxia.
23	Mon.—Local anesthetic agents: spinal anesthesia.
24	Tues.—The barbiturates: intravenous anesthesia.
25	Wed.—Opium derivatives: premedication.
26	Thur.—Stages and signs of anesthesia.
27	Fri.—Gases and volatile anesthetic agents: inhalation anesthesia.
28	Sat.—Common complications of anesthesia: resuscitation and oxygen therapy.
March 2	Mon.—Operating room hazards: fires, explosions.
3	Tues.—Regional anesthesia: general principles: operative blocks.
4	Wed.—Regional anesthesia: operative blocks (continued).

All seven enlisted men of the medical detachment assigned to the Section on Anesthesia had previous training in the biologic sciences. Three finished the first year of medicine, three were professional biologic chemists and the last was a premedical student. Their background proved to be very helpful in their training. Their development as anesthetists in open drop ether or inhalation technics was surprisingly rapid and satisfactory. Enlisted men with such qualifications are desirable students, and their selection for training in anesthesia might be encouraged at other posts to conserve not only nurse but officer personnel as well.

TABLE 3.—*Schedule of Lectures for Enlisted Men of Medical Detachment Assigned to Auxiliary Surgical Teams*

Date	Subject
March 9	Mon.—Introduction: purpose, definitions, records, pertinent biology.
10	Tues.—Stages and signs of anesthesia.
11	Wed.—Open drop anesthesia: ethyl chloride, ether, vinethene.
12	Thur.—Open drop anesthesia: technic in detail.
13	Fri.—Open drop anesthesia: advantages, disadvantages, airways.
14	Sat.—Complications—respiratory; recognition and treatment.
16	Mon.—Complications—circulatory; recognition and treatment.
17	Tues.—Complications—other systems; recognition and treatment.
18	Wed.—Operating room hazards: fires, explosions; precautions.
19	Thur.—Problems in care and transport of operative patients.
20	Fri.—Review.
26	Thur.—Written examination.

It has been my good fortune to be assigned to a post staffed with highly trained and academic minded officers. Their patience and interest have materially aided the plan of instruction. However, to Col. S. Jay Turnbull, commanding officer, and to Col. Hertel P. Makel, chief of the surgical service, I am particularly indebted for their kind permission to present the first organized didactic course in anesthesiology in the history of the Army and for their suggestions and whole hearted cooperation throughout this teaching adventure.

ABSTRACT OF DISCUSSION

DR. HENRY S. RUTH, Merion Station, Pa.: Major Martin has prepared an outline for instruction of anesthesiology in a branch of the armed forces. His emphasis on the fundamental sciences is, as we know from our experience in civilian instruction, a sound principle and a proved one. It will be interesting to observe, however, to just what degree this aspect can or should be emphasized under the duress of war. Many factors, such as the time element and the necessity for rather rapid changes in personnel, should help to determine this for us shortly. In the meantime I feel certain that Major Martin is not neglecting the all important clinical phase. Our medical military forces will be called on to apply certain anesthetic agents and technics under all sorts of situations and conditions, and to be able to do this at all efficiently they must receive as much instruction and practice on the technical side as it is possible to give in the allocated time. Major Martin has mentioned the nonphysician aide. In this group there appear to be available a relatively large number of noncommissioned personnel with some training in the biologic and other related sciences. These men welcome an opportunity to be of service in a branch even remotely related to their previous training as compared to a duty requiring complete dislocation from and contact with their civilian activities. The services in anesthesia already provided by this type of individual appear to be very satisfactory, according to the information gathered from reliable and competent sources. The utilization of such a noncommissioned group would greatly relieve the present great strain on nursing personnel. It is true that military hospital patient material is increasing in numbers, and therefore instruction in military hospitals is a valuable adjunct to civilian instruction. In spite of this change, I believe for several reasons that civilian instruction is as acutely indicated at the present

time as it was in 1940. Civilian instruction would do much to provide an increasing number of anesthetists definitely needed for this type of service in the armed forces. The efficiency of instruction given in established centers of anesthesiology does not suffer by comparison with that given in the more recently formed military hospitals. Moreover, the physical status of civilian surgical cases more nearly approximates, it would seem, that of those encountered in combat service, for civilian practice includes anesthesia for patients of lowered physical status, while that in the service, excluding combat zones, deals mainly with individuals with acute surgical conditions, otherwise in excellent physical status, and in the age group possessing a high resistance. Practice on civilian patients should therefore be valuable training for the future care of combat patients, many of whom are in poor physical status as the result of shock, pain, hemorrhage and trauma, and the unavoidable delay of surgical care frequently encountered. Instruction in anesthesia for military application will be placed on a sound basis when a list of the agents and methods available in the field is known. This, I believe, has not as yet been determined or at least not as yet been made public.

Dr. Sidney C. Wiggin, Boston: Major Martin is to be congratulated for accomplishing in a short time what was thought to be impossible: an organized department of anesthesiology to supply modern methods of civilian practice for pain relief for the military casualty. He has established an anesthesia teaching center for medical officers and enlisted men. My thought is that too few physician anesthetists have been trained in civilian practice, so this program is of vital importance to supply the special operating teams to be organized at the different hospital stations in the line of evacuation. I should like to emphasize the importance of empowering the medical officer in anesthesia with the same authority as the surgical officer in the operating units, so that he may carry out the practices in which his special training has fitted him.

Dr. Stevens J. Martin, Fort Dix, N. J.: I fully agree with Dr. Ruth that the time won't be long distant before we shall have to resort to the training of the nonmedical but biologically trained men to fill in the gaps in various units that are being sent out to do anesthesia and operative work in the field. This problem, I believe, will become more and more acute as the war progresses. I thank you for your kind remarks and I hope that we shall have the fortune of seeing other institutions resort to the training of personnel in anesthesia to relieve the rather grave shortage of anesthetists in the armed forces.

The Common Good of Mankind.—The profession of medicine, having for its end the common good of mankind, knows nothing of national enmities, of political strife, of sectarian dissensions. Disease and pain the sole conditions of its ministry, it is disquieted by no misgivings concerning the justice and honesty of its client's cause but dispenses its peculiar benefits, without stint or scruple, to men of every country and party and rank and religion and to men of no religion at all. And, like the quality of mercy, of which it is the favorite handmaid, "it blesseth him that gives and him that takes"; reading continually to our own hearts and understandings the most impressive lessons, the most solemn warnings. It is ours to know in how many instances, forming indeed a vast majority of the whole, bodily suffering and sickness are the natural fruits of evil courses; of the sins of our fathers, of our own unbridled passions, of the malevolent spirit of others. We see too the uses of these judgments, which are mercifully designed to recall men from the strong allurements of vice and the slumber of temporal prosperity; teaching that it is good for us to be sometimes afflicted. Familiar with death in its manifold shapes, witnessing from day to day its sudden stroke, its slow but open siege, its secret and insidious approaches, we are not permitted to be unmindful that our own stay also is brief and uncertain, our opportunity precarious, and our time, even when longest, very short, if measured by our moral wants, and intellectual cravings. —Watson, Thomas: Practice of Physic.

THE USE OF HUMAN PLASMA IN SPINAL ANESTHESIA

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During the relatively short history of spinal anesthesia, attention has been focused on two problems in designing technic for placing drugs into the subarachnoid space. The first of these has been to produce the desired extent of anesthesia in a manner predictable and with minimal dangers; the second, to secure the required duration of anesthesia with doses of the agent that provide a wide margin of safety. The latter problem has been approached in several ways. Recently, nupercaine and pontocaine, drugs more toxic but more potent than procaine, have been given in relatively smaller amounts and act for longer periods of time. Retarding the absorption of anesthetic drugs has been attempted by dissolving them in various foreign substances of higher osmotic tension than spinal fluid. Finally, prolonged spinal anesthesia is being accomplished by the repeated administration of relatively small doses of the drug.

The problem of obtaining predictable levels of spinal block has exposed the literature to violent argument. Labat [1] and his school were the chief proponents of the principle of diffusion of drugs (procaine) in the spinal fluid increased as needed by appropriate barbotage. He was able to increase the extent of anesthesia by withdrawing and reinjecting the solution of drug in spinal fluid. Labat criticized the gravity control method of attaining desired levels of anesthesia as unphysiologic and dangerous. On the other hand, the gravity control method has had many advocates, for the use of anesthetic drug mixtures both lighter and heavier than spinal fluid. As early as 1907, Barker [2] described the use of 10 per cent stovaine solution in distilled water to which had been added dextrose in 5 per cent concentration. This solution is heavier than spinal fluid, having a specific gravity of 1.030. He demonstrated with the use of glass tubes shaped according to the natural spinal curves that such a solution obeys the physical laws of fluids and seeks the most dependent parts of the spinal canal. The anesthetic levels obtained clinically corresponded to those observed with the models. Barker pointed out that the viscid properties of this solution restricted the anesthetic drug to definite predictable areas, depending on the position of the patient, where it remained undiffused for a definite period of time.

In 1928 Pitkin [3] described his heavy and light anesthetic solutions. The heavy solution first studied and recommended contained starch and later gliadin, and finally amyloprolamine was used. The latter substance prevented diffusion of the anesthetic drug for two hours. Pitkin's light solution owed its properties to the presence of alcohol. The level of anesthesia was obtained by appropriate postural adjustment of the patient.

From the Division of Surgery, Department of Anesthesia, New York University College of Medicine.

1. Labat, Gaston: The Trend of Subarachnoid Block, S. Clin. North America **10**: 671-681 (June) 1930.
2. Barker, Arthur E.: A Report on Clinical Experiences with Spinal Analgesia in 100 Cases, Brit. M. J. **1**: 665-674, 1907.
3. Pitkin, George P.: Controllable Spinal Anesthesia, Am. J. Surg. **5**: 537-553 (Dec.) 1928.

More recently, dextrose has been the substance commonly employed for gravity control and to prolong anesthetic action using the single dose method for spinal anesthesia. It has been advocated for stovaine by Barker,[2] for pontocaine by Sise [4] and for procaine by one of us.[5] Finally, blood serum taken from the patient to be anesthetized was used as the solvent for procaine by Bower, Clark and Burns [6] in 1933. This mixture was employed for anesthesia that was not to extend above the umbilicus by taking advantage of the increased specific gravity, compared with spinal fluid for gravity control. Motor power remained intact in many patients, especially when the levels of anesthesia did not include areas over the umbilicus.

The present preliminary report deals with the use of pooled human plasma as the solvent for procaine employed in spinal anesthesia. The pooled plasma was obtained by centrifugation of refrigerated citrated whole blood with due regard to complete aseptic precautions. The plasma was collected in small rubber capped vials (20 to 50 cc.) and stored in the blood bank. Since pooled plasma has a specific gravity of 1.028 it was used as a heavy solution in the gravity control method for spinal anesthesia. Since Barker [2] had previously demonstrated that duration of anesthesia is dependent on the "viscid" properties of the anesthetic mixture, experiments on man were carried out to determine whether plasma with its high osmotic tension prolonged the anesthetic action as compared with a solution of procaine in spinal fluid.

METHOD

Five volunteer normal men who had not been operated on were used in the preliminary investigation. All experiments were performed three hours postprandially at the same time of the day. All had rested in bed for twelve hours prior to the test. Each subject was anesthetized twice, once with procaine dissolved in spinal fluid and then with the same dose of procaine in plasma. Thus each subject acted as his own control. Tests were conducted forty-eight hours apart. Three subjects were given 100 mg. doses and 2 were given 50 mg. doses of procaine. The technic was standardized as far as possible. A level table was used. Lumbar puncture was performed in the fourth lumbar interspace with the subject lying on his left side. The dose of procaine selected was then dissolved in 2 cc. of spinal fluid or 2 cc. of plasma, and injection was completed in exactly ten seconds. The subject was turned gradually and gently to the supine position. The sensory level of anesthesia was noted at frequent intervals by response to pinprick, and motor power of the lower extremities was observed at the same time. Two end points with regard to sensory anesthesia were noted: the beginning of recession from the maximum height and the ability to perceive painful stimuli at the level of the twelfth thoracic vertebra. The return of motor power was indicated by any motor activity of the lower extremity.

RESULTS

The accompanying table summarizes the observations made. It will be noted that the maximum height of anesthesia obtained by the use of the technic described was the same for all subjects whether plasma or spinal fluid was the solvent used. In 3 of the 5 subjects the duration of anesthesia at the maximal level was definitely increased by the use of plasma. In the other 2 there was no difference. The total duration of anesthesia, as judged in this report by perception of pain at the level of the twelfth thoracic vertebra, was prolonged in the plasma experiments from 18 to 85 per cent of the control value in 4 of the 5 subjects. The fifth subject exhibited no difference in duration. Anesthesia of the motor nerves was greater in intensity and duration if spinal fluid rather than plasma was used as the solvent for procaine. In 2 subjects the duration of motor anesthesia was less with plasma than with spinal fluid; in one experiment there was no motor anesthesia with either solvent; in another the duration was the same, and, finally, there was one subject with motor paralysis for twenty-two minutes when spinal fluid was used and no motor paralysis when plasma was the solvent. At no time did plasma increase the duration or intensity of motor paralysis. There was no appreciable effect on blood pressure, pulse or respiration in these experiments.

Summary of Observations on the Use of Human Plasma in Spinal Anesthesia

	Subject	Procaine, Mg.	Maximum Height	Beginning Recession (Min.)	Beginning Recession % Change	Return to T_{12} (Min.)	Return to T_{12} % Change	Return of Motor Power (Min.)	Return of Motor Power % Change
Plasma	A.B.	100	T_{10}	53	+110	59	+59	30	0
Control		100	T_{10}	25	.....	37	.....	30	.....
Plasma	W.E.	100	T_8	30	0	65	+18	34	−29
Control		100	T_8	30	.....	55	.....	47	.....
Plasma	B.F.	100	T_4	77	+ 28	107	+34	62	−11
Control		100	T_4	60	.....	80	.....	70	.....
Plasma	J.K.	50	T_{10}	45	+104	50	+85	No motor paralysis	
Control		50	T_{10}	22	.....	27	.....	22	.....
Plasma	G.R.	50	T_{11}	25	0	25	0	No motor paralysis	
Control		50	T_{11}	25	.....	25	.....	No motor paralysis	

One possible explanation for the potentiation of procaine anesthesia by the use of plasma as a diluent lies in its protein content. Human plasma has an average of 7.0 Gm. of protein per hundred cubic centimeters, as compared with 0.02 Gm. in spinal fluid.[7] It has been determined that proteins may act synergistically with local anesthetic drugs,[8] but this fact has not been utilized for clinical anesthesia. Other possible mechanisms for synergistic action, which include an increased p_H, increased concentration of potassium sulfate, epinephrine and the addition of purine derivatives, play no part in the phenomena observed. However, the increased duration of sensory anesthesia and decreased motor paralysis may be due largely to retarded absorption of the drug from the plasma solution because of

4. Sise, Lincoln F.: Pontocaine-Glucose Solution for Spinal Anesthesia, S. Clin. North America **15**: 1501 (Dec.) 1935.

5. Rovenstine, E. A.: Anesthesia for Transurethral Prostatic Resection, J. Urol. **31**: 633-648 (May) 1934.

6. Bower, John O.; Clark, J. H., and Burns, J. C.: Spinal Anesthesia: A New Technic Adaptable to the Beginner, J. A. M. A. **100**: 245-247 (Jan. 28) 1933.

7. Bodansky, Meyer: Introduction to Physiological Chemistry, ed. 3, New York, John Wiley & Sons, 1934, p. 218.

8. Hirshfelder, Arthur D., and Bieter, Raymond N.: Local Anesthetics, Physiol. Rev. **12**: 190-282 (April) 1932.

the presence of relatively large amounts of protein. The whole effect may be influenced to a great extent simply by the difference in specific gravity of the solutions.

CLINICAL DATA

After studies on men who had not been operated on were completed, 5 and 10 per cent solutions of procaine in plasma were used for clinical anesthesia for 70 patients. The standard technic of administration using appropriate postural adjustments was employed to attain the desired level of anesthesia with procaine in plasma. The majority of these were subjected to surgical procedures in the lower part of the abdomen and lower extremities. There have been no untoward manifestations during surgical therapy or postoperatively that might be attributed to the plasma. Observations of these few cases have left the impression that dose for dose the duration of procaine spinal anesthesia is prolonged when plasma rather than spinal fluid is the diluent. Predominantly, motor or sensory anesthesia can be obtained easily and as desired by appropriate adjustments of the position of the patient.

477 First Avenue.

THE CAUSES AND PREVENTION OF SUDDEN DEATH IN CORONARY DISEASE

O. P. J. FALK, M.D.
ST. LOUIS

Aside from the mounting mortality toll that would appear inevitable with the generally increased incidence of coronary disease, the problem of minimizing the occurrence of fatal complications of myocardial infarction resulting from coronary occlusion, as far as they are subject to control, presents a clinical challenge that can be met only by a careful analysis of the actual immediate causes of death following the occurrence and during the recovery stage of myocardial infarction.

Acute myocardial infarction may occur in the course of coronary atherosclerosis as a consequence of any one of the following circumstances:

1. Thrombosis of a narrowed atherosclerotic coronary vessel.
2. Intramural hemorrhage in a coronary vessel producing closure.
3. Rupture of a subintimal lipoid abscess with plugging of the lumen.
4. Infarction occurring without complete organic occlusion of a coronary vessel.

The last mentioned circumstance might be induced by prolonged coronary insufficiency, such as a protracted anginal seizure, resulting in a sufficiently sustained ischemia to produce an area of infarction in a myocardium already undernourished from coronary sclerosis. In contrast with this, one occasionally encounters a situation in which the obliterative process of a coronary vessel has evolved so gradually over a period of years that channels of collateral circulation may have developed to an extent sufficient to prevent infarction even when the partial coronary closure does eventually become complete.

From the Department of Medicine, St. Louis University School of Medicine.
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In any event it is the myocardial ischemia and ensuing infarction consequent on acute coronary occlusion that plays the dominant role in the clinical picture and presents the important implications in the prognosis and management of the attack. The outstanding indications for therapeutic management include (1) prompt and effective relief of pain, (2) control of shock, (3) efforts directed toward limitation of regional coronary vasoconstriction and (4) the problem of bringing to bear what influences one can to offset certain critical and ofttimes fatal complications attendant to the period of recovery.

PROMPT RECOGNITION

Any comprehensive discussion of the management of the sudden attack would be incomplete without emphasizing the signal importance of prompt recognition of an impending occlusion. One's clinical perception must ever be on the alert not only for the atypical attack, often without pain, but also to interpret the significance of increasing frequency, severity and duration of anginal attacks in a subject with coronary disease, particularly when brought on by ever diminishing degrees of stress or even perhaps during rest.

MANAGEMENT OF THE ATTACK

Confronted with a clinical picture of coronary occlusion, one's first consideration should be the relief of pain. Intravenous injection of papaverine followed by morphine, if necessary, not only accomplishes this objective promptly but appears to minimize shock and may even serve to limit coronary vasoconstrictor reflexes, with all the implications that such action may have on the extent of the resultant myocardial infarction. Attenuation of vagus vasoconstriction by the use of atropine would likewise appear a sound measure to employ, even when no more than a well founded suspicion of threatened occlusion or infarction exists. The antifibrillation effect of papaverine hydrochloride, as shown by Lindner and Katz[1] in experiments on dogs, appears to justify the clinical use of this opium alkaloid in conditions which are apt to lead to ventricular fibrillation. These investigations have shown that papaverine hydrochloride, in addition to being a powerful coronary vasodilator, makes it much more difficult to induce ventricular fibrillation by faradic stimulation. It would appear that the protection of uninvolved areas of myocardium from vasoconstrictive reflexes which might either extend the area of infarction or induce fatal ventricular fibrillation would constitute the rationale for the prompt use of vasodilatory drugs in acute occlusion.

The work of Manning, McEachern and Hall[2] on coronary artery reflexes accompanying experimental coronary ligation in the dog showed that occlusion of a coronary artery is often followed by a reflex spasm of collateral coronary vessels. Their experiments further suggested that this regional spasm produced an area of ischemia and resultant infarction appreciably larger than would be anticipated from ligation of the particular vessel itself. They conclude that reflex spasm in the regional arterioles following acute occlusion enhances myocardial ischemia and subsequent infarction.

In the purely anginal attacks of coronary atherosclerosis constriction of the regional arterioles is transient

1. Lindner, E., and Katz, L. N.: Papaverine HCL and Ventricular Fibrillation, Am. J. Physiol. **133**: 155-160 (May) 1941.
2. Manning, G. W., McEachern, C. G., and Hall, G. E.: Reflex Coronary Artery Spasm Following Sudden Occlusion of Other Coronary Branches, Arch. Int. Med. **64**: 661-674 (Oct.) 1939.

and responds to nitrites or to alcohol. In the event of sudden permanent occlusion, the same regional vasoconstriction appears to take place, the effective control of which may have a signal effect on the size and immediate outcome of the impending infarction. LeRoy and Snider [3] demonstrated that after coronary ligation in dogs there is a generalized coronary vasoconstriction subsequent to the myocardial infarction. This seemed to be the factor bringing about ventricular fibrillation, which appeared to be the immediate cause of death in animals succumbing to the experiments. In a large group of their animals the average mortality following ligation of the circumflex branch of the left coronary was 75 per cent. This mortality was reduced to 35 per cent with intravenous atropine sulfate, and to 30 per cent with atropine sulfate and aminophylline together.

The accepted clinical management of acute coronary occlusion, with morphine given hypodermically, rest and oxygen when immediately available, all too frequently entails distressing delay in the control of pain and anxiety. This protracted distress undoubtedly influences the degree of resultant shock, aside from the possibility of influencing the ultimate area of infarction. Based on Allen's [4] suggestion in 1935 that papaverine given intravenously be tried in coronary occlusion, because of his observations on its effect in controlling widespread regional arteriolar spasm in sudden occlusions in the leg, and also McEachern's [5] observations that intravenous injection of papaverine lowered by one third the mortality of dogs following coronary ligation, I have been giving from ½ to 1 grain (0.03 to 0.06 Gm.) of papaverine intravenously in all coronary attacks more severe than the transient anginal type responding to nitrites. When papaverine does not induce adequate relief from pain, it can be followed up with a very slow, careful, intravenous injection of from ⅙ to ¼ grain (0.01 to 0.016 Gm.) of morphine (diluted with 2 cc. of sterile water). Aside from the possibility of some control of regional vascular spasm, the prompt relief of pain, as compared with the agonizing delay so many physicians have witnessed while waiting for the protracted response to two or three successive hypodermics of morphine, should tend to minimize the shock, to say nothing of the anguish attendant on the seizure.

CAUSES OF SUDDEN DEATH

Among the immediate causes of sudden death, whether in the throes of the coronary attack or during the period of recovery, are such complicating factors as ventricular fibrillation, myocardial failure and pulmonary embolism.

VENTRICULAR FIBRILLATION

The occurrence of ventricular fibrillation at the moment of death in sudden fatalities following myocardial infarction has been reported by several observers who happened to be taking electrocardiograms at the time of death: autopsy in these cases failed to reveal any other sufficient cause.[6]

The occurrence of frequent ventricular extrasystoles following myocardial infarction is conceded to be an ominous sign. It has been observed that the more frequently they occur the greater is the probability of sudden fatal termination. It is the opinion of several observers that infarcted areas of myocardium are hyperirritable and constitute the foci of ectopic beats, which by their summation might lead to ventricular fibrillation. Woods and Barnes [7] report that groups of patients having more frequent premature contractions have a higher mortality rate. Of the patients who had one premature ventricular beat in every ten, 14 out of 17 died, whereas all of the group who had but one in twenty or more survived.

With the mechanism of sudden death from ventricular fibrillation in mind, Borg,[8] in view of the rather general opinion that ventricular fibrillation is considered a frequent cause of sudden death in arteriosclerotic heart disease, attempted to reduce the tendency to this fatal rhythm by giving all patients admitted to the Ancker Hospital with degenerative heart disease (including hypertensive, coronary and aortic valvular types), 3 grains (0.2 Gm.) of quinidine sulfate three times a day. Before the institution of this routine, among 22,490 admissions over a two year period there had occurred 42 sudden deaths; 80 per cent of the patients who died suddenly had degenerative heart disease. The following year when quinidine was given in such cases routinely, Borg reported only 5 sudden deaths. This observation at least suggests that all patients with degenerative heart disease are in danger of sudden death, which is apparently minimized by the routine use of quinidine sulfate and it would seem to justify such a measure in the treatment of acute myocardial infarction, more particularly when there are frequent premature systoles, which circumstance appears to present greater danger of fatal ventricular fibrillation. The prophylactic administration of quinidine sulfate soon after the onset of myocardial infarction to prevent ventricular tachycardia and fibrillation has been advocated by several writers.[9] As a myocardial depressant quinidine seems a better prophylactic agent against ventricular fibrillation than a curative one.

MASSIVE PULMONARY EMBOLISM

Another immediate cause of death which occurs in an important percentage of cases following acute coronary occlusion with myocardial infarction is massive pulmonary embolism. These pulmonary emboli do not usually come from mural thrombi in the heart but apparently from thrombi originating in the iliac veins. Such massive pulmonary embolism accounted for 6 of the 60 deaths occurring in the series of 128 cases of acute myocardial infarction reported by Woods and Barnes [7] in 1941. Hines and Hunt [10] report that 30 per cent of 161 autopsies on arteriosclerotic heart disease subjects showed pulmonary infarction. This high incidence should be kept in mind in the management of certain

3. LeRoy, G. V., and Snider, S. S.: Sudden Death of Patients with Few Symptoms of Heart Disease, J. A. M. A. **117**: 2019 (Dec. 13) 1941.
4. Allen, E. V.: Sudden Occlusions of the Arteries of the Extremities, Proc. Staff Meet., Mayo Clin. **10**: 678 (Oct. 23) 1935.
5. McEachern, C. G.; Smith, F. H., and Manning, G. W.: Effect of Intravenous Papaverine on Mortality from Sudden Coronary Occlusion in Dogs, Am. Heart J. **21**: 25-30 (Jan.) 1941.
6. Thompson, Ivan: Ventricular Fibrillation Causing Sudden Death of Patient with Disease of Left Coronary Artery, J. A. M. A. **116**: 2583-2585 (June 7) 1941. Smith, F. J.: Ventricular Fibrillation as Cause in Coronary Artery Thrombosis, Am. Heart J. **17**: 735-741 (June) 1939. Miller, H.: Ventricular Fibrillation as Mechanism of Sudden Death in Patients with Coronary Occlusion, New England J. Med. **221**: 564-569 (Oct. 12) 1939. Woods and Barnes.[7]
7. Woods, R. M., and Barnes, A. R.: Factors Influencing Immediate Mortality Rate Following Acute Coronary Occlusion, Proc. Staff Meet., Mayo Clin. **16**: 341-345 (May 28) 1941.
8. Borg, Joseph F.: Ventricular Fibrillation Causing Sudden Death, Tr. Am. Therapeutic Soc. **39**: 115, 1939.
9. Levine, S. A., and Fulton, M. N.: The Effect of Quinidine Sulphate in Ventricular Tachycardia, J. A. M. A. **92**: 1162 (April 6) 1929. Nathanson, M. H.: Pathology and Pharmacology of Cardiac Syncope and Sudden Death, Arch. Int. Med. **58**: 685 (Oct.) 1936. Strauss, M. B.: Paroxysmal Ventricular Tachycardia, Am. J. M. Sc. **179**: 337 (March) 1930. Schwab, E. H.: Observations on the Etiology and Treatment of Paroxysmal Ventricular Tachycardia, Am. Heart J. **6**: 404 (Feb.) 1931.
10. Hines, F. E., and Hunt, J. T.: Pulmonary Infarction in Heart Disease, Ann. Int. Med. **15**: 644-647 (Oct.) 1941.

types of cardiac disease. During the convalescent period of myocardial infarction, circumstances would appear favorable for the formation of thrombi in the iliac veins consequent on the lowered blood pressure and the necessarily prolonged period of bed rest.

In this connection the observations of Potts [11] are of interest. He became convinced many years ago that venous stasis was the most important factor in venous thrombosis and accordingly since 1928 has used the following routine in all surgical cases under his care, beginning twenty-four hours after operation: "Have the patient take fifteen deep breaths morning and evening and with each deep breath passively or actively flex the legs." Potts uses this routine among adults not too weak or too seriously ill to carry out the order, which of course would be the condition in the immediate postinfarction stage of most attacks of coronary occlusion. In the years during which this routine has been carried out, among 518 adult surgical patients Potts [11a] reports not a single instance of pulmonary embolism or even thrombophlebitis, except in fractures of the upper leg in which immobilization rendered flexion of the leg impossible. Among this group he has had 5 patients with pulmonary embolism. Deep inspiration, elevation of the leg and muscular contraction obviously assist in sweeping out the pelvic and femoral veins, thus reducing the venous stasis which is conceded to be such an important contributing factor in the formation of thrombosis and subsequent embolism. The value of leg exercises in the prevention of postoperative embolism is also emphasized by Welch and Faxon [12] in a recent report. That this precautionary measure might be worth utilizing in the relative venous stasis following in the wake of myocardial infarction would appear logical, particularly in the light of Woods and Barnes's observation that 10 per cent of their coronary deaths were attributable to massive pulmonary embolism.

This routine in convalescent coronary management has been established in my service beginning on the fourth or fifth day, the number of exercises being varied from eight to ten according to the patient's condition. For the first few days the legs are flexed passively by the nurse or attendant, the patient folding his hands behind his neck for the deep breathing exercises.

MYOCARDIAL FAILURE

Another cause of fatality within the immediate recovery period following acute myocardial infarction is myocardial failure associated with severe pulmonary edema and occasionally with acute hepatic congestion. Indications for management of this complication include the judicious and careful use of digitalis, parenteral aminophylline and adequate oxygen therapy. The use of aminophylline as a routine measure in myocardial infarction is a debatable question. Aside from its parenteral use in the prodromal or early stage of an infarction complicated by signs of congestive failure, I do not use aminophylline until after the first week of convalescence, when it is given by mouth, along with quinidine and phenobarbital.

MYOCARDIAL INFARCTION AS A SURGICAL COMPLICATION

Coronary occlusion is not infrequently the cause of sudden death in arteriosclerotic subjects during surgical anesthesia and the early postoperative period. The reduction in blood pressure occurring in that period presents an ideal situation for an already impaired coronary vessel to develop complete occlusion. This possibility would appear to justify a painstaking preoperative appraisal of coronary efficiency and a clinical estimate of myocardial and coronary reserve, by a careful inquiry into the middle aged or older patient's apparent ability to meet the demands of his everyday life, as well as a comprehensive evaluation of the objective clinical, x-ray and electrocardiographic findings.

Naturally the proper choice of anesthetic and careful observation and management during anesthesia and the immediate postoperative period is imperative. It would appear good judgment to reduce the time of any surgical procedure to a minimum in the presence of suspected coronary insufficiency. One must continue to bear in mind the danger of medical and surgical shock as an immediate precipitating factor in the production of coronary thrombosis in cases in which evidence suggests that disease already exists in the coronary vessels.

SUMMARY AND CONCLUSIONS

The syndrome usually termed coronary thrombosis or coronary occlusion, consisting of prolonged substernal pressure or pain and accompanied by a fall in blood pressure, shock, pallor, characteristic electrocardiographic changes, fever, leukocytosis and increased sedimentation rate is in reality the result of the myocardial ischemia and ensuing infarction that follows acute coronary occlusion. This is particularly significant since it is recognized today that myocardial infarction may develop and produce classic symptoms without actual permanent structural occlusion of a coronary vessel. Such a circumstance may follow a severe, prolonged, anginal seizure and be associated with all the symptoms described, resulting from prolonged insufficiency of the blood supply to a particular myocardial sector and consequent protracted local myocardial anoxemia. Such coronary failure may result in myocardial infarction, which under certain circumstances might be averted by prompt intravenous administration of papaverine or morphine, with atropine and perhaps aminophylline, along with absolute rest and oxygen. When sudden complete occlusion makes myocardial infarction inevitable, it would appear within the realm of possibility that such measures might minimize the ensuing shock, if not the area of myocardial infarction, and possibly avert fatal ventricular fibrillation.

The mortality of acute coronary occlusion with myocardial infarction might well be favorably influenced by the early recognition of impending infarction and the institution of adequate protective therapy without delay. Furthermore, the dangerous complications that often characterize the immediate or later recovery period of an acute coronary attack should be borne in mind and adequate protective measures instituted in our therapeutic management of the episode.

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11. Potts, Willis J.: Pulmonary Embolism, Ann. Surg. **111**: 554 (April) 1940.

11a. At the 1942 annual session of the American Medical Association Willis Potts reported to the Section on Surgery (to be published) that to date he has had 837 operative cases on this routine, without a single instance of either phlebothrombosis or pulmonary embolism, whereas in 128 leg fractures (which prevented the leg exercises) there had occurred 5 cases of pulmonary embolism. Among 150 operative patients in the hospital who did not have the exercises, he reports that 4 had one of the complications described.

12. Welch, Claude E., and Faxon, Henry H.: Thrombophlebitis and Pulmonary Embolism, J. A. M. A. **117**: 1502-1508 (Nov. 1) 1941.

Clinical Notes, Suggestions and New Instruments

ANEURYSM OF THE ANTERIOR CEREBRAL ARTERY

WALTER E. DANDY, M.D., BALTIMORE

During the past decade intracranial aneurysms have been added to the group of lesions that are curable by operation. I now have cured 15 patients with aneurysms of the internal carotid artery arising in the cavernous sinus and along the intracranial course of this vessel. The treatment of aneurysms of the internal carotid artery is relatively simple, it being necessary only to isolate the aneurysms between ligatures or silver clips, or to clip the neck of the aneurysms when they lie within the cranial chamber.

Herewith is a report of an aneurysm of the anterior cerebral artery. As it is one of the most common aneurysms of the brain, and one with a fairly easy approach, the hope is entertained that the surgical attack will become increasingly more frequent. Up to the present aneurysms of other arteries in the brain have not been cured, but doubtless with time the list will be increased.

REPORT OF CASE

A well nourished, normal looking woman aged 45 was referred by Dr. Robert Sullivan of Murfreesboro, Tenn., Dec. 1, 1941, because of defective vision.

Her only complaint was loss of vision, which began two months before and had steadily increased. There had been no headaches.

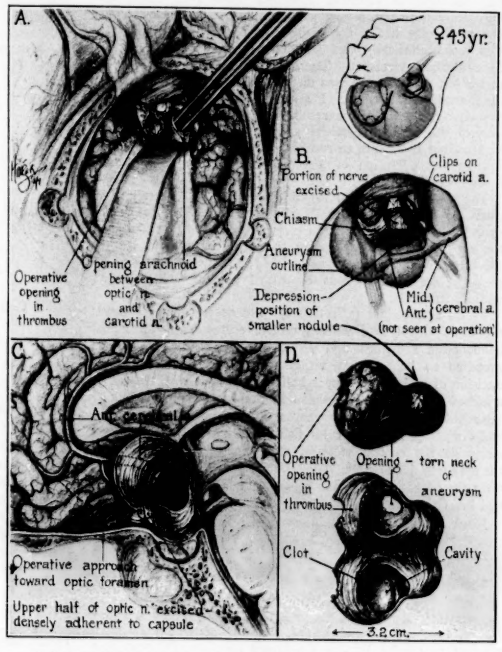
Dr. Alan C. Woods examined the patient's eyes and found (1) visual acuity to be 15/200 in the right and 20/70 in the left eye; (2) loss of all color vision in the right eye; (3) central scotoma in the right eye; (4) suggestive altitudinal hemianopsia for form in the right eye; (5) some pallor of the right optic disk; (6) central scotoma for color in the left eye, and (7) only a small field for colors remaining in the left eye.

The blood pressure was 120 systolic and 85 diastolic, the Wassermann reaction of the blood was negative and roentgenograms of the head were negative.

The diagnosis was a tumor in the suprasellar region; an aneurysm was not suspected.

An operation was performed on December 3. A right hypophysial approach was made with a concealed incision. There was no increased intracranial pressure. Less than 0.5 cm. from the optic foramen the optic nerve began to show a brownish red discoloration and was increased in size. My first thought was that this was a glioma of the optic nerve and chiasm. The internal carotid artery lay alongside for a distance of probably 3 cm., was free of any attachment and looked perfectly normal. The space between the artery and the nerve was inspected but extension of the tumor was not seen. On further withdrawal of the frontal lobe for inspection of the chiasm a large mass was seen extending upward into the base of the brain. It was smooth and well rounded and was certainly not a glioma. Suspecting that it was a tumor I incised the capsule and made an attempt to curet the interior, but the content was so hard that the curet made no impression on it. Since it was firmly attached to the right optic nerve and a line of cleavage could not be found, I cut away the upper half of this nerve, freeing the presumed tumor just before the chiasm was reached. The incised bed of the nerve was about 0.75 cm. long; approximately the upper half of the optic nerve had been excised. With very slight traction on the incised capsule the mass was lifted slowly and with no apparent point of fixation. After a little progress, however, the wound suddenly filled with blood. I suspected that the internal carotid might have been torn and promptly passed a silver clip through the blood and closed it. The blood was then aspirated and it was seen that the bleeding had completely stopped. With gentle dissection the tumor was separated from the optic chiasm and lifted out of its bed; no further bleeding resulted. The tumor was then recognized to be an aneurysm. An opening in the wall, as large as the end of a lead pencil, was the source of the sudden hemorrhage. The aneurysm could have arisen only from the right anterior cerebral artery. However, at no time was this vessel actually seen, and curiously no bleeding appeared from it subsequently, although only the internal carotid artery had been ligated.

The aneurysm was about the size of a bantam's egg. It was the shape of a dumbbell and the upper part was about twice as large as the lower part. The constriction between the two parts was at the level of the optic chiasm, behind which it lay.



A, drawing of aneurysm. *B*, upper half of optic nerve excised at point at which aneurysm was firmly attached. *C*, sketch showing the approximate location and relative size of aneurysm; also the relative thickness of the thrombus and size of the cavity. *D*, drawing of aneurysm after its removal. The opening, where it was attached to the right anterior cerebral artery, is shown.

The upper portion protruded upward between the two frontal lobes and the lower portion passed back of the optic chiasm and must have rested on the sella turcica. There was only a small cavity in the aneurysm; this connected with the opening on the exterior, at which point the attachment to the trunk of the anterior cerebral artery had been torn off. The larger upper subdivision of the aneurysm was white and the lower half was black; the striking difference in color was due to the age of the contained thrombus, the upper part being quite old and very firm and the lower part being fresh and softer. The cavity in the aneurysm was entirely in the upper part. The weight of the aneurysm was 16 Gm.

Fortunately the Matas test had been made before the operation and was negative. This test is now routinely performed on every patient whose lesion is in the environs of the sella, because a number of aneurysms have been encountered when tumors were suspected. Without a prior knowledge of the adequacy of the collateral circulation through the circle of Willis, closure of the carotid artery would be taking a serious risk, although in this case the risk was inescapable. There can, I think, be no doubt that the cerebral circulation on the right side of the brain is now maintained solely through the posterior communicating artery.

On coming out of the anesthesia (about two hours after the operation was concluded) the patient had half a dozen convulsions on the left side, but there was no weakness of that side of the body then or at any time subsequently. The following day she was in excellent condition, quite alert, happy and apparently normal in every way. Nine days later when asleep she apparently had a convulsion and broke open the wound; this was immediately closed; no one was in the room at the time of the convulsion. There was no subsequent weakness of the left side, but she was disoriented and less alert for three or four days thereafter. I assumed that the convulsion and the after-effects were the result of necrosis of the brain from loss of the anterior cerebral artery. This may or may not be true, but it appears to resemble a similar state that at times follows the operation of Freeman and Watts in prefrontal lobotomies.

The patient left the hospital December 21, eighteen days after the operation. Mentally she was as well as before the operation. A complete third nerve paralysis has persisted since the operation, doubtless owing to an injury sustained when the internal carotid artery was closed; this was entirely unexpected, since bleeding was controlled quickly and seemingly without trauma.

Vision in the right (affected) eye was practically unchanged; the same visual field with a central scotoma and altitudinal hemianopsia remained, and visual acuity was 20/400. I was prepared to believe that vision would have been lost after excision of at least the upper half of the nerve with the firmly attached aneurysm. The vision in the left eye was definitely improved; the visual acuity was 20/20, the central scotoma had disappeared and the color fields, which were barely present alongside the central scotoma, were normal (examination of the eyes was done by Dr. Woods). On Jan. 15, 1942 (six weeks after the operation) she was reported to be in excellent health, and her vision was good.

Johns Hopkins Hospital.

MALIGNANT MELANOMA

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Mrs. L. A. S., a red haired, freckled housewife aged 24, referred to me by Dr. L. J. Perenyi on Sept. 13, 1930, had had four nonhairy, brown moles in the interscapular region since infancy. These lesions were separate and were grouped in an area of skin no larger than a silver dollar (38 mm.). All were slightly raised. The mole farthest to the right was darker and more prominent than the other three. During the preceding two months this mole had become still darker, was raised about 1 cm. above the skin level, had bled after slight scratching, and a small ulceration had developed which did not heal. There had been no change in the three other moles.

A consultation with Dr. Howard Fox was arranged on the same day. It was decided that the entire group of moles should be removed by electrodesiccation, the removal to be wide and deep.

On September 13, under procaine hydrochloride anesthesia, the entire group of moles was removed *en masse*, the full thickness of skin and considerable subcutaneous fat being included. The excised tissue was submitted to Dr. J. Frank Fraser for microscopic examination. On September 24 he reported as follows: "Section of the tumor which you submitted for microscopic examination show anaplastic cells infiltrating the epiderm and lymphatic vessels of the corium. Histologic diagnosis, malignant melanoma."

The wound healed by granulation. On November 11 it was entirely healed. On March 17, 1931 there was a satisfactory, smooth, soft scar. On Sept. 14, 1931, one year after operation, there was no sign of recurrence. On June 29, 1932 the patient returned, worried about a blackhead at the edge of the scar. The comedo was expressed and the patient reassured.

In 1935 the patient gave birth to a daughter, her only child.

In January 1940 the patient noticed an enlarged gland in her left axilla. On March 9 she consulted Dr. Julius Gottesman, who found a mass of glands in the left axilla which suggested a primary cancer of the breast. Careful examination of the breast, however, did not reveal any abnormality. The patient failed to tell Dr. Gottesman of the operation on her back in 1930 or of the pathologic diagnosis made at that time, which she and her husband both knew.

Dr. Gottesman operated on the patient at the Sydenham Hospital on March 14, 1940 for removal of axillary glands. A pathologic report by Dr. Arthur Ginzler of the Sydenham Hospital showed metastatic melanocarcinoma.

The axillary growth recurred. Definite pulmonary metastases were demonstrated by roentgenograms. The patient died in November 1941.

This report is of interest because of the long interval (nine years and three months) between removal of a malignant melanoma and the appearance of metastatic growths.

147 East Fiftieth Street.

Council on Physical Therapy

THE COUNCIL ON PHYSICAL THERAPY HAS AUTHORIZED PUBLICATION OF THE FOLLOWING REPORT. HOWARD A. CARTER, Secretary.

FARIES SUNLAMPS, MODELS 2434, 2435, ACCEPTABLE

Manufacturer: Faries Manufacturing Company, Decatur, Ill.

The Faries Sunlamps, Models 2434 and 2435, employ the Council accepted Westinghouse Mazda RS Sunlamp Bulb (THE JOURNAL Dec. 6, 1941 p. 1979). This bulb incorporates a sealed-in reflector; no transformer is required.

Following is a description of Faries Sunlamp, Model 2434:

Lamp: Mazda RS type bulb.
Finish: Shade, base and standard, gray ripple flexarm and trim satin nickel.
Base: Diameter 10½ inches, height 2½ inches, contains switch.
Reflector: Diameter 9¼ inches, depth 4 inches.
Overall Height: Height, 52 inches.
Extension: 34 inches to 50 inches from bottom of shade to floor. Flexible arm extends 11 inches to center of shade.
Wiring: Ten feet of approved rubber covered cord with approved socket and unbreakable rubber plug.

Following is a description of Model 2435:

Lamp: Mazda RS type bulb.
Finish: Shade and base rippled bronze, standard and arm statuary bronze.
Base: Diameter 11½ inches, height 5 inches. Contains switch.
Height: Overall, 60 inches. To bottom of shade, 50 inches.
Adjustable Bottom of Shade to Floor: From 38 to 54 inches.
Reflector: Diameter 9¼ inches, depth 4 inches.
Arm Extension: Ten inches to center of shade.
Adjustment: Ratchet joint at top of vertical shaft permits various adjustments.
Wiring: Ten feet of approved cord with approved socket and unbreakable plug.

A minimum perceptible erythema is obtained with the Westinghouse RS type bulb in approximately five minutes at 24 inches.

The Council found that Model 2435 was mounted on a more stable base than Model 2434.

The Council voted to accept the Faries Sunlamps, Models 2434 and 2435, for inclusion on its list of accepted devices.

MEDICAL EDUCATION IN THE UNITED STATES AND CANADA

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MEDICAL EDUCATION AND THE WAR

A SERIES OF ARTICLES BY FEDERAL AUTHORITIES RESPONSIBLE FOR MEDICAL SERVICE IN CONNECTION WITH THE WAR

UNITED STATES ARMY

Major General James C. Magee
Surgeon General, Medical Corps.

The inventions and scientific discoveries of the machine age placed at man's disposal powers not alone to build but also to destroy with an insensate fury beyond the imaginings of his forebears. Armed conflict has ceased to be an affair reserved to the professional soldier but instead has become the pitiless total war of the modern day, which affects the life and destiny of every citizen of a belligerent state.

The increasing complexities of modern warfare have evolved armies intricately organized and precisely coordinated, which are created, welded and steeled for a single end. The problems confronting an army, including those relating to medical science, differ widely from the problems of a civil population. The evolution of highly trained general and special staff officers for the management of these issues has inevitably resulted. Among the special staff officers there has appeared, in all the armies of the great powers, a medical specialist—the military surgeon—to meet the changing situations. Unless this new development is clearly appreciated, the problem of the medical welfare of the army will be viewed in terms only of the medical and surgical treatment of the sick and wounded.

The duty specifically charged to the Medical Department of the Army is the conservation of the manpower of the military forces. Such a coldly factual statement presents no concept of the far flung organization which is in active operation to fulfil the task. Unseen is the agency endowed with special powers which reaches into the nation's industrial centers to take the vast quantities of materials needed for the professional care of the Army, whether on the battlefield or in the large modernly equipped military hospitals in the homeland. Unsuspected is the corps of experts specially trained in preventive medicine and sanitation who have visited and studied, unheralded and frequently secretly, regions often remote and strange, where history may decree that the fate of the nation shall be irrevocably decided. Likewise there is no suggestion of the many research projects which are being conducted by or at the behest of the Medical Department, to the solution of which the nation's most prominent medical scientists are devoting thei attention. These examples suffice to emphasize the fact that the military service presents outlooks and issues which have no counterpart in civilian practice and which necessitate specialized knowledge in the field of medicomilitary practice.

From the inception of mobilization to the completion of demobilization, the Medical Department is intimately concerned in every factor which affects the health of the Army. Furthermore, the Medical Department is the only organization which is represented in every echelon of the combat organization from the attack wave at the forefront of the battle through all the intermediate steps to the zone of the interior. This is due to the fact that medical service must be continuous from the moment and place at which the soldier falls to his final destination and disposition.

The duties specifically charged to the Surgeon General by regulations fall under three main headings:

1. The selection of the prospective soldiery to make sure that only those are accepted who are physically fit to endure the rigors of warfare.

2. The preservation of the health of the able bodied in the military service.

3. The restoration to health of those who become sick or are injured and wounded. This duty includes all the facilities (installations, supplies, vehicles) and aid (medical field units; location, collection and transporting wounded) necessary for the evacuation and hospitalization of military personnel.

Brief as such an outline of functions may be, it is at once apparent that it includes responsibilities and activities far beyond the scope of medical practice in civil life. The Army is invested with incomparably greater power to control its component elements and the environmental surroundings than civil communities. This power operates at the very outset to establish the characteristics of the group: the nature, composition, size and functions. It then selects from the civil population the desired number of individuals who appear to meet these basic requirements and even fixes their status and relative standing in the group as a whole. In the process of selection the Medical Department naturally takes one of the leading roles, since health and vigor are indispensable attributes of those who must serve in the armed forces.

This work is therefore of great importance. Clearly before an Army itself exists, its nature and health are already partially determined by the standards of quality prescribed and the effectiveness of the selective process put into operation. Planning and devising an efficient system of selection consume months, later to be followed by the enormous labor of conducting the physical examination of millions of men.

Infectious diseases have decisively influenced the entire course of history. Civilizations have waned or vanished for lack of knowledge of the methods to control the plagues which, throughout generations, destroyed millions of human lives without check. The scientific investigations of the past century, however, completely altered the outlook. The vital importance of the new science of preventive medicine was early recognized by the armed forces of all world powers, as a matter of course. No modern army would be able to carry out its mission successfully or indeed to survive for any length of time under combat conditions without the protection from disease which it enjoys in great measure by the unrelenting campaign directed against the outbreak and spread of infectious disease.

An immense amount of study has been devoted to preventive medicine by military surgeons, for whom it occupies a position of paramount importance in the maintenance of the armed forces at maximum physical efficiency. The United States Army has played a leading role in this field of investigation from the earliest days, and, as a result, some of the greatest advances in medical knowledge in preventive medicine have been contributed by medical officers of our army. The work of the immortal Walter Reed on yellow fever, which made possible the building of the Panama Canal, is a particularly brilliant example. A recent example, interesting because of its contribution to the problems of national defense, is the research work conducted by the Medical Department of the Army in Trinidad involving a tiny mosquito of peculiar habits which lives in the air plants growing in the high branches of the giant immortelle trees used to shade cocoa plantations. In 1941, proof of its role in the transmission of malaria resulted from a special study. Now a program of control is under way.

Every member of the United States Army is now vaccinated against typhoid and the paratyphoid fevers, smallpox, tetanus and yellow fever. Immunization to the latter two diseases has been made possible only by recent advances in medical science. In fact, the United States Army is the first in history to put into effect universal vaccination against the much dreaded yellow fever. The Medical Department is also fully prepared to immunize troops against typhus fever, bubonic plague and cholera, should these measures be indicated.

The infinite variety and complexity of problems attached to the physical selection of individuals which are to compose the Army and the preservation of the health by every means possible of those accepted are matters which are not common to the experience of the civilian practitioner. Special knowledge and training are requisites to the undertaking of responsibilities of such vital importance to a nation whose very existence is committed to the physical welfare of the men under arms, who must withstand hardships to the limit of human endurance.

The professional services rendered in army practice do not differ materially from civilian practice. The Army is operating a huge system of hospitals with an immense total number of beds distributed over half the globe. Some of these hospitals have a bed capacity of two thousand. There is ample clinical material to provide experiences ranging from obscure tropical diseases to those of the arctic zone, from those on the surface of the earth to those occurring in the substratosphere, and from those on the surface of the body to those inside the peritoneal cavity.

A unique feature of the professional work is the fact that for the most part it deals with a selected population of vigorous young males. Naturally, this has certain disadvantages as well as its great advantages. Acute medical and surgical conditions predominate. The astonishing recuperative powers of the body are naturally brought to the fore, and recovery is the rule. As evidence, note the fact that the death rate has been extraordinarily low in the expanded army. The knowledge of human nature gained by contact with the American soldier is worthy of some emphasis. His uniqueness is something an officer never would wish to forget.

However great may be the professional eminence of the doctor in uniform, it avails nothing to the wounded soldier lying unattended where he fell on the battlefield. How can the wounded receive the fullest benefits of the physician's art? This problem is the specific responsibility of the medical officer to solve. Between medical skill, however, and the utmost need it must serve lies the shattering tumult of the conflict and roads urgent with forward moving troops and weapons pressing hard against the supreme hour of decision.

To reach and evacuate a wounded soldier amidst this chaotic devastation of the battlefield is one of the most difficult tasks which confront the military surgeon. It can be achieved effectively only by those who are brave and resourceful and are versed in the tactics of warfare. As in every other field of human activity, only the well informed are competent to undertake the grave responsibility. It is this special military knowledge and training which distinguishes the competent military surgeon in the armies of the world from the doctor who is wearing a uniform but who possesses no other attributes of a medical officer. The purpose and place of the Reserve Officers Training Corps in the curriculum of a university is precisely to impart the education in military art and tactics indispensable to the performance of duties of the military surgeon. On account of the service they perform in this connection, the War Department has every intention of continuing the R. O. T. C. training.

The planning, creation and operation of the vast organization required for the evacuation and professional care of the wounded is in itself an undertaking of greatest magnitude. As late as the sixteenth century no provision was made for the medical care of military casualties. Commonly they were put to the sword by the able bodied, friend or foe alike, or were left to suffer at the hands of ghouls. Not until the American Civil War was an effective system devised for the orderly evacuation of wounded from the battlefield and early treatment behind the lines. The organization set up at that time by an army surgeon, Jonathan Letterman, has become the basic pattern on which is constructed the field medical service of all the great powers. The first world war demonstrated anew that this function is one of the most important phases of the medical service of the theater of operations. Identification of the wounded, immediate first aid by trained personnel, treatment of shock during the evacuation, and arrival at an evacuation or surgical hospital in the best operative condition greatly reduced the battlefield mortality, saved many from disabling after results, and cleared the forward areas of unattended wounded.

The fact that military medicine has made great advances since 1918 was dramatically portrayed by the phenomenal results obtained in the medical and surgical care of the wounded after the attack on Pearl Harbor. Carefully planned methods of evacuation, the employment of drugs of the sulfonamide group and the administration of blood plasma were the chief features. Wounds healed rapidly and cleanly. Massive infection, which was the rule in World War I, was conspicuous by its absence. Less than 4 per cent of the cases of extensive wounds, including compound fractures, became infected even to a mild degree. The mortality from perforating wounds of the abdomen, which previous experience had demonstrated to be 80 per cent of all cases, was practically nonexistent. Many men have already returned to duty who would be facing the prospects of long continued hospitalization if they had not been afforded the benefits of the newest methods of treatment.

The morale of troops in combat is profoundly affected by the quality and promptness of the medical service rendered to them. The key man in this heavy responsibility is the battalion surgeon, who serves with the front line troops and is the first physician under whose ministrations the wounded come. It is his high mission to rescue them from the furious inferno. If he fails, the morale of the troops falters and fails. More, the entire organization of medical evacuation from front to rear ceases to function. The task requires physicians of stout heart and deep understanding.

The question of occupational classification and deferment from the draft is, naturally, one which is of great concern to premedical and medical students. A program has been devised to defer, until completion of one year of internship, students who meet all qualifications.

Premedical students in universities and colleges with acceptable standards may be enlisted in the Enlisted Reserve Corps under the "Pre-induction Training Plan," by passing a qualifying examination. The details of this plan are obtainable from the Dean of the educational institution or from the Commanding General of the Corps Area in which the student is pursuing his course of instruction.

On graduation from the premedical course those who have been enlisted in the Enlisted Reserve Corps may, upon application, be discharged from their enlistment and commissioned as Second Lieutenant, Medical Administrative Corps, Army of the United States, when they have been matriculated in an accredited school of medicine and can produce the certificate of the dean of the school to that effect. This commission may be held in force throughout the period of medical education so long as it is successfully and continuously pursued. In the last year of instruction in the course of medicine, application may be made for a commission as First Lieutenant in the Medical Corps, Army of the United States, and upon certification of the dean, three months prior to the date of graduation, to the effect that the student is expected to graduate he may be granted the commission for which he applies. Following this change in status, the student may be permitted to pursue an internship of twelve months' duration which must commence immediately after graduation.

Those who have been afforded the protection of this preinduction training plan should not anticipate continued deferment if they fail to enter upon an accredited internship very shortly after graduation. It is not to be expected that exemption will be continued in the case of those who unduly delay commencement of an internship, and are, therefore, not engaged in occupational or educational pursuit for which this entire plan was conceived.

UNITED STATES NAVY

Rear Admiral Ross T. McIntire
Surgeon General, Medical Corps

In preparing for a medical education it has been considered good practice for the premedical student to have four years' college work, which includes certain definite subjects considered necessary as a groundwork in the study of medicine. There is a very definite doubt in our minds whether it is right or desirable at this time to say that a young man who wishes to study medicine must spend four years in a college, four years in medicine and one year as an intern before he may enter one of the military services. Our educators can give this very serious consideration.

Since we must look to our premedical students to provide the bulk of the personnel in our colleges of medicine throughout the country, it has become necessary to find some means to protect these boys while they are in school. Here again a great deal of common sense has been used in allowing us to work out a sensible program. The Navy is enlisting first and second year premedical and predental students in Class V-1 of the U. S. Naval Reserve. These men are eligible for transfer to Class V-7 on completion of their second year and, on acceptance for admission to an accredited medical or dental school, are eligible for appointment to Class H-V (P) U. S. Naval Reserve. Should he fail to qualify in medicine, he still retains his Reserve status as an enlisted man in the Navy and is eligible to serve at once in that organization. In this way the boy has had an opportunity to continue his college work, and the service has a potential candidate at all times.

In our opinion it is a fine thing to interest the young man in the Navy while he is a premedical student, for by so doing he will increase his interest in certain branches of medicine, such as tropical diseases, preventive medicine and military medicine. It is the observation of competent officers in the Army and in the Navy that the average medical student, coming into the services, is not well grounded in any of these three subjects. The medical educators of this country recognize this and are taking vigorous steps to see that this defect in our educational system is corrected and some uniformity applied.

It had been the plan of the Navy, when this Special Class, Ensign H-V (P), U. S. N. R., was organized, to call the medical student to active duty during the vacation period and give him an opportunity to see active service in a naval hospital, on a hospital ship or on a combatant ship. Now that the accelerated program has been put into effect, this cannot be done; but should we find that they go back to a more orderly system, whereby we have a certain vacation period, the Navy plans to put this practice into action at once.

Very naturally the Army and the Navy will commission in the Special Class Reserve more medical students than they can give internships to. The excess, however, can be given internships in civil institutions and that can easily be worked out by the Procurement and Assignment Service. The intern in the Navy is given a rotating service that will prepare him for active duty in the field. This war is a young man's war and we in the Navy are finding it necessary to put young doctors who are just out of school on our smaller ships, which are extremely active. It is necessary then for us to see that the young intern is given plenty of opportunity to do emergency surgery. He is also given intensive instruction in minor surgery and first aid. It is our practice to see that, in addition to the indoctrination these young men receive in naval customs and naval medicine, they are given special instruction in newer methods of naval hygiene, field sanitation and the diagnosis and treatment of tropical diseases. The fine spirit of cooperation that is being shown between the services and the medical educators of the country insures us in the matter of keeping the present teaching current with the advances that are being learned in actual warfare. In other words, the medical student will now get the latest information on the treatment of shock, the use of the sulfonamide drugs and the methods used in the treatment of burns and war injuries. The services will see to it that the information they get from the hard experience of treating casualties is put to use at once in the instruction of our young men.

Medicine has never been an easy subject to master, and any man who completes four years in medicine has achieved something. To the medical student today I should like to bring this thought: "Give serious attention to the study of pathology." It is a difficult subject and one of the most important with which we all have to deal. With a war on it will teach you, more than any other subject, methods to decrease our morbidity and mortality.

The medical student will be interested to know what the service offers to the graduate in medicine. What can he look forward to? I have said before that a medical officer in the Navy can do the best work of which he is capable, for he is given an opportunity to do just this. When he finishes his internship he will be sent to sea on a combatant ship. Here he will undoubtedly see active service in the handling of war casualties. He has a responsibility, however, that goes well beyond the simple treatment of wounds. The medical officer on board ship occupies a singular position, for he has a definite mission and that is to keep our men well. It is no compliment to a doctor on a ship to have a large sick list. So to the young graduate in medicine again let me say that should you join the Navy you will find that your practice of medicine always approaches your problems from the preventive side. You must learn to plan to keep your crew well. This means you must know something about ventilation; you must know something about food inspection; you must realize that you will be the adviser to the commanding officer in all matters that pertain to keeping the crew well. There is no question that you must be a good doctor. That means you must be able to diagnose and treat disease as you find it. But we would expect you to do that. The medical officer of a ship must be a good, practical psychologist—that is, he must understand the psychology of the sailor.

It has been our practice in the past to keep the young medical officer who is entering the service on his first cruise at sea for a period of two years. During this time he finds out how we live in the Navy. He will meet many surprises, but he will be only too glad to enter into the spirit of life on board ship, for he will soon find that he plays a most important part in a huge machine. He will visit ports in many parts of the globe. He will face all kinds of new conditions in life. At the end of this tour, when we bring him ashore, we make it a point to send him to a hospital where he can again pick up the intense side of the practice of medicine. It is during this time ashore that we expect him to make up his mind as to the field of medicine in which he might care to specialize. Since we in the Navy have a specialty, which is naval medicine, we can never allow ourselves to specialize too highly in any of the other branches to the detriment of our real one. When a doctor shows promise in surgery, urology, x-ray or some of the other specialties, he is given an opportunity to go under instruction in one of our larger hospitals, where he has a tour of one year. At the end of that time if he has shown real promise he is ordered to a civil institution for further work in his specialty. As the years go on, each time he comes ashore, a real attempt is made to see that his duty is such that his specialty can be put to use. We have found that this system works very well, and it does furnish an incentive for the young man to go on in the service.

The field of aviation is one that is extremely inviting to young medical officers. Here is a branch of the service that calls for an isolated specialty which we term "Aviation Medicine." Since flying is a young man's game, we are encouraging our younger medical officers to enter this field at the end of their first sea cruise. The course we offer in the training of young doctors for this special field is an excellent one and is made up of two parts—the didactic and the practical. On the didactic side, all of the newer methods are taught in the way of selecting and examining personnel. On the practical side, theories are put into practical application, and in addition the doctor is taught to fly so that he may better understand the problems of the men with whom he must live.

In a more limited field we find the young officer entering the specialty that has to do with submarines and diving. While not so spectacular as aviation, it is just as important. It is rather interesting to note at this point that the problems that face a pilot who flies in an altitude of 35,000 feet are not dissimilar to those of an officer who commands a submarine and submerges it to a depth of 250 feet.

To the officer who is interested in the scientific side of medicine we now have intensive courses in the field of epidemiology, and trained teams are under instruction for duty in all parts of the world wherever the Navy or Marines may go. No matter what the disease may be, whether it is malaria, yellow fever or plague, these men will be able to cope with conditions as they find them. It is no wonder the Navy emphasizes the great need for special preparation in premedical days, so that the graduate in medicine will have laid his groundwork and can easily qualify in these isolated specialties which are so necessary and so pressing at this time.

So to the young man entering the Navy let me briefly summarize the points which we should like to see him follow in his premedical course:

1. He should acquire a sound groundwork in science and mathematics.

2. He should place emphasis, while in medical school, on military medicine and tropical diseases. An extraordinary attempt should be made to get as much additional work in pathology as his school hours will permit.

3. He should adopt the attitude that his medical school is the instrument that provides him with all the necessary tools with which to practice medicine. He should make an early decision that he will not attempt to specialize until he has had a full opportunity to put into practice the fundamentals that he has been taught in school.

4. During intern days, he should keep abreast of all that is new in medicine, surgery and research that applies to these subjects.

5. To those who are responsible for the instruction of the intern should come the given responsibility that they are preparing this young man for immediate duty in the field where hundreds of lives may depend on their teaching.

One last word to the premedical student: You have as responsible a job to do for your country as has the young man who is enlisting in the Army or in the Navy. Should you not then do your best to prepare yourselves for a commission in the services? If not, it would be better for you to enlist in one of the services now. However, medical education must go on—the Army, the Navy, the Public Health Service and the civil communities must have doctors throughout this war and after the war—so common sense among the medical educators is the most important single thing in the field of medical education today.

UNITED STATES PUBLIC HEALTH SERVICE

Thomas Parran, M.D.
Surgeon General

The ancient phrase of the Hippocratic Oath ". . . into whatsoever houses I enter" has taken on new and larger meaning today, for the "houses" which open their doors to the young physician are now as wide as the entire world. To his country a medical graduate's skill and knowledge are indispensable; to himself his training is the hub of many radiating lines of questioning about the future.

The answers which the medical graduate makes to these questions are largely determined by his understanding of what he is prepared to give his profession and what he wants to secure in return. The young physician reasonably expects certain fundamental satisfactions in his professional life. He wants to serve his nation, to begin productive work while he is still young and to earn a living. He wants to be assured of increasing experience and responsibility. He wants continuous and stimulating contacts with other professional men. And he seeks an opportunity for progress in some special field wherein his interests and abilities strongly lead him.

The United States Public Health Service is an organization in which the young physician may find these basic satisfactions. The Service is the principal agency of the government whose functions are primarily concerned with medicine and allied sciences. Its various activities are coordinated under the administration of doctors of medicine who are members of the commissioned medical corps of the Public Health Service.

The responsibilities of the Service demand the application of knowledge and skill in the three broad fields of clinical medicine, research and public health practice.

CLINICAL MEDICINE

To become an able clinician is the one ambition of most medical students. The realization of that goal implies access to a wealth of clinical material, collaboration with competent, experienced practitioners, and the physical facilities requisite for the practice of modern medicine. These essentials are provided for the young service physician in thirty hospitals, one hundred and nineteen dispensaries and twenty-seven medical units in federal penal institutions.

The total bed capacity of the thirty service hospitals is over sixteen thousand, in which more than half a million patients are treated annually for diseases and conditions representing every specialty in medicine. In addition, physicians of the Service give medical and psychiatric care to some twenty thousand inmates of federal penal institutions and treat more than two thousand indigents in the Venereal Disease Medical Center, Hot Springs, Ark.

Twenty-six of the thirty service hospitals are operated by the Division of Marine Hospitals and Relief. In our hospitals the diagnostic and pathologic laboratories, the x-ray department, dental clinic, physical therapy department, the eye, ear, nose and throat clinics, the genitourinary and venereal disease clinics make available to the physician important contributory services necessary for thorough study and successful management of his cases. The general hospitals maintain outpatient departments.

The staff of a marine hospital is headed by an experienced medical officer whose duty it is not only to study the progress of patients but also to guide the progress

of the young physicians under his direction. As in the great university hospitals, the principle of group practice is applied in the hospitals of the Service. In frequent staff meetings, experiences are shared and individual problems discussed. Moreover, prompt access to a large consultant staff, drawn from the active medical profession of the community in which the hospital is located, affords continuous contact with experienced private practitioners.

The responsibility of rendering complete medical service to a large heterogeneous group of patients demands that the Public Health Service develop able practitioners of the highest skill and knowledge in the art and science of medicine.

SCIENTIFIC RESEARCH

The program of scientific research carried on by the National Institute of Health, a major administrative unit of the Service, is one of the most extensive of its kind in the world. Special divisions are devoted to biologics control, cancer, chemistry, chemotherapy, industrial hygiene, infectious diseases, pathology, public health methods and zoology.

Industry, public health and private medicine alike look to the National Institute of Health for the continuation of research necessary in the prevention of occupational diseases. Technologic changes in industry demand prompt and authoritative investigation of the effect of new substances and new processes on the human organism. New methods of prevention and control must be developed and applied. The importance of the industrial hygiene work of the Public Health Service has been greatly enhanced by the program of war production.

Although engineering and chemical control of industrial hazards is of first importance in the prevention of occupational disability, industrial health must be under the supervision of physicians. Thus a comparatively new specialty—industrial medicine—little known to medical students is opened to those who elect a career in the Service.

Testing, improving and demonstrating the effectiveness of public health methods are other essential investigatory functions of the Public Health Service. The collection and analysis of mass data on general and specific aspects of national health are carried on so that health problems of public importance may be accurately defined and related to their epidemiologic factors.

The Division of Pathology in the National Institute of Health, like the pathologic clinic in the medical school, has the last word on many of the investigations initiated in other divisions. In this unit the results of animal experimentation and of clinical research are subjected to the scrutiny of the pathologist and await his final diagnosis. The expanding research of the Service has increased the work of this division by leaps and bounds in recent years. It is here that junior officers receive training in pathologic diagnosis and description.

The foregoing summary of a few of the Institute's investigations and attainments can only serve to suggest the nature and extent of the manifold research activities of the Public Health Service.

PUBLIC HEALTH PRACTICE IN THE SERVICE

It would be misleading, however, to call the Service, as personified by its officers, a clinical or research agency alone. The Service is also adviser and helper of 1,824 official territorial, state and local health agencies.

When the President proclaimed a national emergency in 1940, federal and state health authorities were better prepared than ever before to cope with the many problems which arise from sudden concentrations of population in industrial and military mobilization areas. The pattern of technical and advisory aid at the request of state and local authorities, a long standing basic public health policy of the Service, had provided the nation with a corps of well experienced public health physicians, flexible and mobile enough to meet the demands of the emergency.

Today, the pattern of cooperative public health work, evolved by the Service and state authorities, forms the basis of an effective federal-state program for the expansion and constant strengthening of health services throughout the United States. The Public Health Service administers the allocation of federal funds made available annually to the states through the provisions of title VI of the Social Security Act. The Service also administers the federal-state program for the control of venereal diseases, made possible by the provisions of a special act of Congress in 1938.

The great task of making efficient full time health services available in all parts of the United States is only begun. More than ever, the need for trained public health physicians is paramount.

Foreign quarantine, always a major activity of the Service, has taken on new peaks of emphasis under the shifting pressures of war. It is significant that the United States Public Health Service was able to say in its last annual report to the Congress for the fiscal year 1941 that despite the war—always conducive to the spread of disease—not a single patient with quarantinable disease had entered the United States during the year.

In addition to the provision of medical and hospital service for the beneficiaries of the Public Health Service, the organization provides supervisory personnel and consultant service in the administration of medical care programs in other federal agencies. Such agencies include the Bureau of Indian Affairs, the Bureau of Prisons, the Farm Security Administration of the Department of Agriculture, the Pan American Sanitary Bureau and the Office of Civilian Defense, and numerous other war agencies and federal committees established to guide health defense activities.

In 1902, when Congress gave the Service the responsibility of standardizing and controlling the manufacture of biologic products, the death rate from diphtheria was 25.3 per hundred thousand. Today it approaches the vanishing point—mainly due to toxoid and antitoxin.

The solution of a number of medical problems seems simple today, yet when the medical student asks himself "What is the answer to arthritis, to heart disease, to cancer?" he will experience the same challenge as was offered by typhoid and diphtheria to students of an earlier day.

THE REGULAR COMMISSIONED MEDICAL CORPS

The Public Health Service is one of the "career" branches of the federal government and is organized to permit the recruitment of young officers and to guarantee the capable recruit permanent employment, in-service training, consistent promotion, disability benefits and retirement with pay without any cost to the officer.

The regular commissioned medical corps of the Service is organized along the same lines as are the medical corps of the Army and Navy. This medical corps now includes 439 officers on active duty, of whom

102 rank as Assistant Surgeon, 186 as Passed Assistant Surgeon, 54 as Surgeon, 41 as Senior Surgeon, 46 as Medical Director, 8 as Assistant Surgeon Generals, 1 as Assistant to the Surgeon General, 1 as Surgeon General. The great majority of these officers are on duty in the Hospital Division, the Divisions of States Relations, Foreign Quarantine, Venereal Disease, Mental Hygiene, the Public Health Service districts and the National Institute of Health.

The pay, allowances and promotion schedule in the Army, Navy and Public Health Service medical corps are the same. Commissions to the Public Health Service are granted by the President of the United States by and with the advice and consent of the Senate. The initial grade of commissioned medical officers in the Public Health Service is Assistant Surgeon. The successive higher grades are Passed Assistant Surgeon, Surgeon, Senior Surgeon and Medical Director. These grades correspond to the grades ranging from First Lieutenant to Colonel in the Army Medical Corps.

Candidates for appointment in the initial grade of Assistant Surgeon must have the following qualifications: They must be citizens of the United States, they must be graduates of an approved medical school, they must have completed one year's internship in an approved hospital or its equivalent in experience, and their age at the time of examination must not be less than 23 nor more than 32 years.

Applicants for appointment to the commissioned corps of the Service are invited to appear before an examining board composed of commissioned officers of the Service. They must pass physical, written and oral examinations given by the board.

Candidates who have passed the tests of the National Board of Medical Examiners are credited with the minimum passing grade for the written part of the professional examination. They must appear before the examining board of the Service for the physical, academic, general fitness and oral examinations.

Examinations for appointment in the initial grade in the Public Health Service are held each year, usually in the early spring, and advance notice is published in THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

THE RESERVE MEDICAL CORPS

The Public Health Service has authority by law to appoint for training, or in times of emergency, physicians who have completed their internships. Such appointments within the Reserve Corps are now being made. The rank to which a Reserve officer is appointed depends on his age and experience.

Three hundred and forty-nine Reserve officers are now on active duty, 184 of whom rank as Assistant Surgeon, 104 as Passed Assistant Surgeon, 40 as Surgeon, 20 as Senior Surgeon and 1 as Medical Director. The majority of Reserve officers are on duty with the Hospital Division, the Maritime Service and the Coast Guard in critical industrial and military mobilization areas. There is a distinct need for more personnel in these activities, which are closely coordinated with the war effort. Reserve officers receive the same rank, pay and allowances as Regular officers. Commissions are issued for five year periods, and there is a 5 per cent increase in pay every three years. The requirements for a commission in the Reserve are the same as for the Regular Corps, except that no written examination is required. Such appointments are recommended by the board of examiners on the basis of the applicant's qualifications and the report of his physical examination.

INTERNSHIPS

Although a Reserve commission in the Public Health Service does not insure deferment from induction into the Army or Navy, the Selective Service System is encouraging medical students to complete their training and internship before the question of recruitment and assignment arises. This year the Service has the opportunity to offer up to eighty internships. A person offered such an internship is also eligible for a reserve commission (inactive), provided, of course, he does not already hold such a commission in the Army or Navy.

First year interns are paid $1,440 a year. After a deduction of $630 for quarters and subsistence, provided by the government at the hospitals, where they must reside, this compensation amounts to $67.50 a month.

Nine of the marine hospitals of the Public Health Service have been approved for intern training by the Council on Medical Education and Hospitals of the American Medical Association. First year internships are patterned on the standard system of rotating services.

Appointments to first year internships are announced annually on November 15. Applications from third and fourth year medical students will be given consideration when received. Students desiring further information regarding application for an internship should write the Surgeon General of the United States Public Health Service, Washington, D. C.

First year interns usually appear before the examining board of the Service to qualify for appointment in the commissioned corps just prior to the completion of their internship.

Candidates for a commission in the Regular Corps of the Public Health Service who pass the examination are placed on the Merit Roll in the order of their grades and receive appointments as Assistant Surgeons in that order.

Physicians who have passed the examinations and for whom no vacancy in the Regular Corps exists at the time may be commissioned in the Reserve Corps for active duty during the interim.

Officers in the initial grade of Assistant Surgeon after three years of service in the regular commissioned corps and after qualifying, under examination, are eligible for promotion to the grade of Passed Assistant Surgeon. Passed Assistant Surgeons are eligible for promotion to the grade of Surgeon after twelve years of service from the date of their commission as Assistant Surgeon. Promotion to the grade of Senior Surgeon is made after twenty years of service, and Medical Directors must have completed twenty-six years.

Physical examinations are given before promotion to each grade. Promotion to the grades of Passed Assistant Surgeon and Surgeon is preceded by written professional examinations before a board of commissioned officers. When Surgeons and Senior Surgeons become eligible for promotion to higher grades, such promotion is based on passing the physical examination and on a satisfactory record.

The United States Public Health Service calls for the physician with imagination, skill and determination. Wherever and whatever his activities may be, the public health physician's duties reach beyond the individual bedside to touch the lives of all the people. Into whatsoever houses he may enter, he is a direct representative of the more abundant life for which our nation is fighting.

PROCUREMENT AND ASSIGNMENT SERVICE FOR PHYSICIANS, DENTISTS AND VETERINARIANS

HAROLD S. DIEHL, M.D.
Member, Directing Board, Minneapolis

The war is creating a greatly increased demand for young physicians. The only sources of supply of such physicians are the medical schools of the nation. All the male students of these schools now hold, or should hold, commissions in the medical corps of either the Army or the Navy. On completion of one year of internship those who qualify physically are subject to call to active duty. This means that for the duration of the war medical schools are essentially training institutions for medical officers. Obviously such institutions must continue to function to capacity and at maximum efficiency. To be able to do this they will require a continuing supply of qualified students, adequate support and competent and adequate teaching staffs.

Unless the age for military service is reduced it should be possible to accept for admission to medical school most of the desirable applicants before they are subject to induction by Selective Service. Quality rather than quantity of premedical work is of paramount importance. It is essential, however, that those students who have a real aptitude for the study of medicine be convinced that they can serve best by continuing their medical training. Premedical students who are of draft age may be removed from the jurisdiction of Selective Service by joining the recently authorized Enlisted Reserve Corps for college students of the Army or the V-1 or V-7 program of the Navy. On acceptance by an accredited medical school, such students may be discharged from their enlisted status to accept appointment as commissioned officers in the medical corps of the service to which they are obligated.

The financial problems of medical students occasioned by the accelerated program are being greatly eased by generous grants for loan funds which the Kellogg Foundation recently made to medical schools and by the recent appropriation by Congress making $5,000,000 available through the United States Office of Education for loans to students in technical fields, including medicine. To be eligible for the latter loans students must be in the last two years of the medical course.

The effect of the accelerated program on medical school budgets is not yet entirely clear. In some schools increased income from tuition fees is sufficient to cover the increased cost of instruction. In others unless additional funds are provided the quality of instruction will inevitably suffer.

The most acute problem which medical schools are facing today is that of maintaining adequate and competent teaching staffs. On July 1 the Procurement and Assignment Service requested that the deans of medical schools prepare revised lists of their faculties with indications as to which individuals they consider available for military service and which are essential for the continuance of effective teaching programs in their schools. It was pointed out that in the preparation of these lists the deans have a dual responsibility: one to retain an adequate and efficient teaching staff, the other to release as many young men as possible for service with the armed forces. During the war emergency the teaching ordinarily done by the young men should be delegated so far as possible to those who because of age, sex or physical defects are not available for service with the armed forces. On the other hand, many of the most effective teachers in medical schools are well trained young men who are making teaching their careers. It is fallacious to assume that such men can be satisfactorily replaced by busy practitioners who have had little or no experience as teachers. If the quality of medical training suffers, the results may not be immediately apparent; but they will be far reaching in the form of inferior medical service rendered by the thousands of physicians educated during the war. The quality of medical education dare not be sacrificed, and not only should those young men who are effective key teachers be declared "essential" but they should be advised that it is their patriotic duty to remain in their teaching positions. An analysis of the lists of "essential" teachers submitted by the deans is being made by the Procurement and Assignment Service, the results of which will be transmitted to the respective schools and to the appropriate committees of the Procurement and Assignment Service.

Internships are insisted on by the medical departments of both the Army and the Navy. During the war emergency both services, however, limit the length of the internship to one year for all interns who are under their jurisdiction. The directing board of the Procurement and Assignment Service recently enunciated a similar policy, stating that "physicians who have completed one year of internship shall be considered available for service unless they have been appointed to 'essential' positions."

Graduate training in the specialties of medicine is being greatly curtailed, because of the urgent needs of the armed forces for young physicians. In fact, the only grounds for deferment of military service for physicians to pursue graduate training is when such training is incidental to "essential" service as a hospital resident. In certain hospitals a resident staff is necessary for the adequate care of the patients. Recognizing this, the Procurement and Assignment Service has authorized the listing of certain residents as "essential." The period during which any individual may be so listed is not, after July 1, 1942, to exceed two years beyond the internship; the number of residents listed as "essential" is to be kept to a minimum; this minimum is not to exceed 50 per cent of the number of residents which the hospital has ordinarily had; and, as far as possible, essential residencies are to be filled with individuals who do not meet the requirements of the armed forces for commissions.

After March 1943, however, there may be serious difficulties in securing physicians to fill even "essential" hospital residencies. At that time all physically qualified male interns will be under the jurisdiction of the Army or the Navy and so cannot be appointed to residencies unless given deferment of call to active duty. Some "essential positions" can be satisfactorily filled by women or by men not physically qualified for military service. To fill others will require the deferment from active duty of a limited number of interns who are desired for appointment to essential residencies. Failing this there will be in certain hospitals a serious reduction in the quality not only of the care of the patients but also of the training of interns and medical students. The Procurement and Assignment Service has presented this problem to both the Surgeon General of the Army and the Surgeon General of the Navy, but as yet no satisfactory solution has been assured.

FORTY-SECOND ANNUAL PRESENTATION OF EDUCATIONAL DATA BY THE COUNCIL ON MEDICAL EDUCATION AND HOSPITALS

H. G. Weiskotten, M.D., Secretary

The Council presents, in this annual compilation of data pertaining to its educational activities, statements from authentic sources regarding medical education and war. Changes of major importance have occurred in the programs both of medical schools and of hospitals, and an attempt has been made to present a concise and accurate account of current activities. In the following pages also is given the usual review of preliminary and undergraduate medical education, a description of the approved medical schools, comments on internships and residencies, the newly revised Essentials of an Approved Internship, and revised lists of approved internships and residencies and fellowships in the specialties. A summary of the activities of the various agencies interested in continuation courses for practicing physicians is here given. Finally are included the official requirements of each of the fifteen approved examining boards in medical specialties together with a statement of the policies adopted by these boards regarding allowances of credit for military service.

The Council and THE JOURNAL express thanks and appreciation to the military officials, the officers of the institutions mentioned and others for their cordial cooperation in supplying the material submitted in this presentation and for other records furnished throughout the year to the office of the Council and the members of its staff on inspection or visitation, enabling the Council to maintain its medical student and hospital registers efficiently, to carry on its activities as outlined by the House of Delegates of the American Medical Association and to serve the profession.

The Educational Number of THE JOURNAL has proved to be of inestimable value to the medical profession and of particular interest to medical educators, hospital officials, students, interns, residents and those concerned with specialty certification and the promotion of graduate and postgraduate medical education. It is in frequent demand by governmental agencies. Reprints of the entire study, as well as an equal number of reprints of the lists of hospitals, are made available and are widely distributed.

THE ACCELERATED PROGRAM

Medical schools of the United States have recognized that the national war emergency has created the need for a larger number of well qualified physicians. All but four medical schools have initiated an accelerated program to increase the supply of physicians for the Army, the Navy and the civilian population. The plan provides for the utilization of the long summer vacation as a teaching period, and, by continuing the schedule throughout the calendar year, the four year medical course is completed in three years. It should be possible for medical schools to maintain the quality and quantity of instruction which they have given in the past. The eligibility requirements for admission to medical schools have not been lowered from the present minimum standards set by the Association of American Medical Colleges and the Council on Medical Education and Hospitals of the American Medical Association.

Fifty-three schools have adopted the accelerated curriculum involving both the acceptance of entering students and the graduation of a class every nine months. Ten schools will graduate a class every nine months during the next three years but will admit entering classes on an annual basis. The University of Tennessee College of Medicine will continue to operate on the four quarter plan, which provides for the admission of students at any quarter and the graduation of students quarterly. Eight schools of the basic medical sciences have adopted an accelerated program. The medical schools operating on the usual academic plan are the University of Arkansas, the University of North Dakota and Howard and Baylor universities.

Two schools, namely Louisiana State University School of Medicine and the University of Texas Medical Branch, accelerated the senior year during 1941-1942 and graduated these students in March. The

Schools Which Will Accept an Entering Class and Graduate Students Each Nine Months, June 1942 to June 1945

University of California Medical School
University of Colorado School of Medicine
Yale University School of Medicine
Georgetown University School of Medicine
George Washington University School of Medicine
Emory University School of Medicine
University of Georgia School of Medicine
Loyola University School of Medicine
Northwestern University Medical School
University of Chicago, The School of Medicine
University of Illinois College of Medicine
Indiana University School of Medicine
State University of Iowa College of Medicine
University of Louisville School of Medicine
Louisiana State University School of Medicine
Johns Hopkins University School of Medicine
University of Maryland School of Medicine and College of Physicians Surgeons
Boston University School of Medicine
Harvard Medical School
Tufts College Medical School
Wayne University College of Medicine
University of Minnesota Medical School
St. Louis University School of Medicine
Washington University School of Medicine
Creighton University School of Medicine
University of Nebraska College of Medicine
Albany Medical College
Long Island College of Medicine
Columbia University College of Physicians and Surgeons
Cornell University Medical College
New York Medical College, Flower and Fifth Avenue Hospitals
New York University College of Medicine
University of Rochester School of Medicine
Duke University School of Medicine
Bowman Gray School of Medicine of Wake Forest College
Western Reserve University School of Medicine
Ohio State University College of Medicine
University of Cincinnati College of Medicine
University of Oklahoma School of Medicine
University of Oregon Medical School
Hahnemann Medical College and Hospital of Philadelphia
Jefferson Medical College of Philadelphia
Temple University School of Medicine
University of Pennsylvania School of Medicine
University of Pittsburgh School of Medicine
Medical College of the State of South Carolina
Meharry Medical College
Vanderbilt University School of Medicine
University of Texas Medical Branch
University of Vermont College of Medicine
University of Virginia Department of Medicine
Medical College of Virginia
Marquette University School of Medicine

Schools Graduating Students Every Nine Months, June 1942 to June 1945; Entering Students Admitted Annually

College of Medical Evangelists
University of Southern California School of Medicine
Stanford University School of Medicine
University of Kansas School of Medicine
Tulane University of Louisiana School of Medicine
University of Michigan Medical School
University of Buffalo School of Medicine
Syracuse University College of Medicine
Woman's Medical College of Pennsylvania
University of Wisconsin Medical School

TABLE 1.—*Program of Medical Schools in the United States*

School	Sessions			Graduation	
	1942-1943				
	2d, 3d & 4th Years	Entering Class	Subsequent Entering Class—1943	1942 Class	Subsequent Class 1943
University of Arkansas School of Medicine	September	September	September	June	June
University of California Medical School	June	June	February	May	February
College of Medical Evangelists	July	July	July	June	April *
University of Southern California School of Medicine	June	June	June	June	January *
Stanford University School of Medicine	June	June	June	June	March *
University of Colorado School of Medicine	June	June	March	June	March
Yale University School of Medicine	June	June	April	June	March (a)
Georgetown University School of Medicine	June	June	March	May	March
George Washington University School of Medicine	June	June	March	June	February
Howard University College of Medicine	September	September	September	June	June
Emory University School of Medicine	June	June	March	May	March
University of Georgia School of Medicine	July	July	April	June	March
Loyola University School of Medicine	July	July	April	June	April *
Northwestern University Medical School	June	June	March	June	Aug. 1942* (b)
University of Chicago, The School of Medicine	June	June	March	June	Sept. 1942 (b)
University of Illinois College of Medicine	June (c)	September	June	June	March
Indiana University School of Medicine	May	May	January	May	December 1942
State University of Iowa College of Medicine	May	June	February	May	February
University of Kansas School of Medicine	September (d)	June	June	June	May
University of Louisville School of Medicine	July	July	April	May	February
Louisiana State University School of Medicine	June	June	March	March (e)	March
Tulane University of Louisiana School of Medicine	September	September	September	June	April
Johns Hopkins University School of Medicine	June	June	March	June	February
University of Maryland School of Medicine and Coll. of P. and S.	June	June	April	May	March
Boston University School of Medicine	June	June	March	May	February
Harvard Medical School	July	July	March	June	March
Tufts College Medical School	June	June	April	June	March
University of Michigan Medical School	June	October	October	May	January
Wayne University College of Medicine	June	June	April	June	March *
University of Minnesota Medical School	June	June	March	June	March *
St. Louis University School of Medicine	June	June	March	June	February
Washington University School of Medicine	June	July	March	June	March
Creighton University School of Medicine	July	July	March	June	March
University of Nebraska College of Medicine	June	June	March	May	March
Albany Medical College	July	July	March	June	April
Long Island College of Medicine	July	July	March	May	March
University of Buffalo School of Medicine	July	July	July	June	March
Columbia University College of Physicians & Surgeons	July	July	March	June	March
Cornell University Medical College	July	July	April	June	March
New York Medical College, Flower & Fifth Ave. Hosps	July	July	April	June	March
New York University College of Medicine	June	June	April	June	March
University of Rochester School of Medicine	July	July	March	June	March
Syracuse University College of Medicine	July	July	July	June	March
Duke University School of Medicine	July	July	March	May	March *
Bowman Gray School of Medicine of Wake Forest College	June	June	March	(f)	December
University of Cincinnati College of Medicine	June	June	March	June	February
Western Reserve University School of Medicine	June	June	March	June	February
Ohio State University College of Medicine	June	June	March	June	March
University of Oklahoma School of Medicine	September	September	June	June	May
University of Oregon Medical School	June	June	March	June	March
Hahnemann Medical College and Hospital of Philadelphia	July	July	April	June	March
Jefferson Medical College of Philadelphia	August (g)	June	April	June	February
Temple University School of Medicine	July	August	April	June	March
University of Pennsylvania School of Medicine	July	July	April	May (e)	March
Woman's Medical College of Pennsylvania	September (i)	September	(j)	June	March
University of Pittsburgh School of Medicine	July	July	April	June	March
Medical College of the State of South Carolina	June	June	March	June	April
University of Tennessee College of Medicine	July	July	(k)	June	Sept. 1942
Meharry Medical College	September	September	July	May	June
Vanderbilt University School of Medicine	June	June	March	June	March
Baylor University College of Medicine	September	September	October	June	May
University of Texas Medical Branch (h)	March (i)	June	March	March (e)	December 1942
University of Vermont College of Medicine	July	July	April	June	March
University of Virginia Department of Medicine	June	June	March	June	March
Medical College of Virginia	July	July	April	June	March
University of Wisconsin Medical School	July	July	July	June	March
Marquette University School of Medicine	July	July	March	June	March *

* Internship required for M.D. degree.
(a) Commencement June 1943.
(b) Quarterly graduation.
(c) Second year—September.
(d) Accelerated program.
(e) Senior year accelerated 1941-1942.
(f) No seniors 1941-1942.
(g) Seniors—June.
(h) Entire curriculum accelerated session 1941-1942.
(i) Seniors—July.
(j) Undecided.
(k) Operated on four quarter plan—new students admitted and classes graduated every quarter.
(l) Classes in session since March 23, 1942.

completion of the senior year was advanced from June to May 1942 by fourteen schools.

Under the accelerated sessions now in operation, students will be graduated by two schools in December 1942, two in January, ten in February, thirty-eight in March, five in April, three in May and three in June 1943. In addition to the University of Tennessee College of Medicine, two schools have operated on the quarter system; the former will graduate students in

TABLE 2.—*Program of Schools of the Basic Medical Sciences*

School	Session Begins		
	1942-1943		Subsequent
	2d Year	Entering Class	Entering Class—1943
University of Alabama School of Medicine	June	June	March
University of Mississippi School of Medicine	June	June	February
University of Missouri School of Medicine	June	June	February
Dartmouth Medical School	May	May	February
University of North Carolina School of Medicine	June	June	March
University of North Dakota School of Medicine	September	September	September
University of South Dakota School of Medical Sciences	June	June	March
University of Utah School of Medicine	June	June	March
West Virginia University School of Medicine	June	June	March

September 1942 and the latter two in August 1942. In another school the entire four year curriculum is being offered for the first time, and a class will graduate in December 1943.

The details of the programs now in operation in the various medical schools are outlined in table 1. Similar data for the schools of the basic medical sciences are given in table 2. Listed also are the schools which plan to accept an entering class and graduate students every nine months, as well as those which, while graduating students every nine months during the next three years, will admit entering students once a year.

Licensure requirements in forty-one states, the District of Columbia, Alaska and Puerto Rico permit the granting of licenses, or have been so modified as to permit admission to licensure, to graduates who have completed the accelerated course of training in recognized medical schools. In seven states, Georgia, Illinois, Kansas, Michigan, Nebraska, New Jersey and South Carolina, existing statutory provisions require modification, probably by legislative action, before licenses can be granted to graduates who have completed the accelerated course of medical education.

Another difficulty will be that of correlating or integrating the graduation of medical students every nine months with the customary one year internship. As pointed out elsewhere in this issue of THE JOURNAL, certain hospitals are planning special programs.

SUPPLY OF PHYSICIANS

With the adoption of accelerated programs by most of the medical schools in this country, an attempt has been made to estimate the number of physicians who will be graduated from these schools during the next three years. These figures are shown in table 3 and are based on the student enrolment in each class and the particular program of each individual school.

Due allowance has been made for losses due to failures or discontinuance for other reasons. Losses are estimated at 16.2 per cent for first year students, 5.1 per cent for second year students and 1 per cent for third year students. These percentages were based on the actual experience figures of all medical schools for the years 1937-1941 inclusive.

Included as "graduates" in this tabulation are those students who will have completed their formal undergraduate program in those schools requiring the internship before the granting of the M.D. degree.

Under normal conditions and without the adoption of the accelerated program, the number of physicians graduated during this same three year period would be approximately 15,947. If the estimates shown in this table are correct—and they are considered to be very conservative—21,029 students will actually be graduated during this period, or 5,082 more than would have graduated without the adoption of the accelerated programs. There are in addition approximately 220 students from the United States in the medical schools of Canada. With the adoption of the accelerated programs by these institutions it is anticipated that practically all of this group will also be graduated by June 30, 1945.

Never before in the history of this country have as many as 21,000 physicians been graduated from its medical colleges within a three year period.

In a previous issue of THE JOURNAL[1] it was estimated that the total number of deaths of physicians in the United States during 1941 was 3,460. It is difficult to determine what the over-all effect of the war will be on the annual deaths of physicians. However, the estimated number of graduates of the approved medical schools during the next three years, based on the annual deaths of physicians during recent years, provides more than two graduating physicians for every death.

TABLE 3.—*Estimated Number of Graduates of the Approved Medical Schools in the United States, July 1, 1942 - June 30, 1945*

Dates of Graduation	Estimated No. of Graduates
1942	
July 1-December 31	275
1943	
January 1-March 31	4,180
April 1-June 30	681
July 1-September 30	255
October 1-December 31	4,444
1944	
January 1-March 31	399
April 1-June 30	541
July 1-September 30	4,578
October 1-December 31	380
1945	
January 1-June 30	5,296
Total	21,029

It is comforting to realize that, rather than permit this war to interfere with the education of physicians, the federal authorities in cooperation with medical schools have adopted programs which will increase the output of physicians and at the same time retain the normal curriculum without any material lowering of standards.

Furthermore, the acute need of the Army is for young physicians for assignment to duty with troops. This need must be met, and there is here offered to recent graduates who have just completed internships

1. Deaths of Physicians in 1941, editorial, J. A. M. A. **119**: 565 (June 13) 1942.

an unusual opportunity for service. Reports indicate that there are still many qualified graduates of 1941 who have not yet applied for commissions in the Medical Corps.

AFFILIATED ARMY HOSPITAL UNITS

One of the contributions of medical education to the war has been the organization of affiliated hospital units by the medical colleges of this country. The various medical colleges participating in this program are providing for the Army fully organized hospital staffs composed of unusually competent men in the various specialties, accustomed to working together and prepared to assume the medical responsibilities incident to the conduct of an army hospital.

As shown in table 4, forty medical schools have organized such hospital staffs. Of these, four schools have each organized two such staffs. These affiliated units are of three types, general hospitals, evacuation hospitals and surgical hospitals.

TABLE 4.—*Medical Schools Having Affiliated Hospital Units*

	Designation of Unit
General Hospitals	
College of Medical Evangelists	47
University of California	30
University of Colorado	29
Yale University	39
Emory University	43
Loyola University	108
Northwestern University	12
Indiana University	32
Louisiana State University	64
Tulane University	24
Johns Hopkins University	18 & 118
University of Maryland	42 & 142
Harvard Medical School	5 & 105
University of Michigan	298
Wayne University	36
University of Minnesota	26
St. Louis University	70
Washington University	21
Albany Medical College	33
Columbia University	2
Long Island College of Medicine	107
Syracuse University	52
Duke University	65
University of Cincinnati	28
Western Reserve University	4
University of Oregon	46
Jefferson Medical College	38
University of Pennsylvania	20
University of Pittsburgh	27
Vanderbilt University	300
University of Texas	127
Medical College of Virginia	45
University of Wisconsin	44
Evacuation Hospitals	
University of Illinois	27
University of Kansas	77
Cornell University	7
University of Oklahoma	21
Baylor University	56
University of Virginia	8
Surgical Hospitals	
University of Louisville	31
University of Texas	30

In table 4 is shown opposite the name of the medical school the particular unit or units which it has assumed the responsibility for organizing.

R. O. T. C. UNITS IN MEDICAL SCHOOLS

For years the Army has believed that the Reserve Officers Training Corps program offered in medical schools provided a very desirable type of experience for medical students who might later be called to serve as officers in the medical corps of the army. The Surgeon General's Office is especially enthusiastic in regard to this program at the present time and has announced its intention of continuing it. Medical students who hold commissions in the Medical Administrative Reserve Corps are urged to take this course if it is given in the colleges which they are attending. The schools which have such R. O. T. C. units are listed in table 5.

TABLE 5.—*Medical Schools Having an R. O. T. C. Unit*

University of California	University of Buffalo
George Washington University	Ohio State University
Georgetown University	Western Reserve University
Indiana University	University of Oregon
State University of Iowa	Jefferson Medical College
Boston University	University of Pennsylvania
University of Michigan	University of Pittsburgh
St. Louis University	Vanderbilt University
Washington University	Baylor University
Cornell University	University of Vermont
Syracuse University	Medical College of Virginia

LOAN FUNDS AND SCHOLARSHIPS FOR STUDENTS IN ACCELERATED PROGRAMS

The accelerated program adopted by the medical schools has presented many new problems to the medical student. Prominent among these is the financial problem of the student with limited means. The long summer vacation period during which many students earned sufficient funds to permit them to continue their educational program has been eliminated.

As recently reported in THE JOURNAL, the W. K. Kellogg Foundation, recognizing the desperate situation facing these students, offered each of the medical schools an immediate grant of $10,000 to be used as scholarships and loans at the discretion of the individual medical school. Grants of $5,000 were made to the schools of the basic medical sciences which offer only the first two years of the medical course. Similarly grants were made by the W. K. Kellogg Foundation to certain schools of dentistry, public health and nursing.

It is planned that payments on loans from these funds will be made directly to the schools, thus providing for all time a revolving loan fund for deserving students.

This action by the W. K. Kellogg Foundation undoubtedly represents the largest single contribution that has ever been made in this country to enhance the opportunities for deserving but financially handicapped medical students to complete their medical education.

Sponsored chiefly by the American Council on Education, a program was recently initiated to secure federal funds in the form of loan funds which might be made available not alone to medical students but to certain other technical and professional students following an accelerated program. Congress voted favorably on the proposal, and $5,000,000 has been made available for this purpose.

The regulations under which the law will operate were not available at the time this issue of THE JOURNAL went to press. The language of the law which was passed June 30, 1942, as provided by the U. S. Office of Education, is as follows:

PROVISION FOR LOANS TO STUDENTS IN CERTAIN ACCELERATED PROGRAMS

Language in the 1942-43 appropriation act for the Federal Security Agency, passed June 30, 1942.

Loans to students in technical and professional fields (national defense): To assist students (in such numbers as the Chairman of the War Manpower Commission shall determine) partici-

pating in accelerated programs in degree-granting colleges and universities in engineering, physics, chemistry, medicine (including veterinary), dentistry, and pharmacy, whose technical or professional education can be completed within two years, as follows:

Loans: For loans to students whose technical or professional education can be completed within two years to enable them to pursue college courses, who attain and continue to maintain satisfactory standards of scholarship, who are in need of assistance, and who agree in writing to participate, until otherwise directed by said Chairman, in accelerated programs of study, in any of the fields authorized hereunder, and who agree in writing to engage, for the duration of the wars in which the United States is now engaged, in such employment or service as may be assigned by officers or agencies designated by said Chairman, such loans to be made by such colleges or universities or public or college-connected agencies from funds paid to them upon estimates submitted by them as to the amounts necessary therefor, $5,000,000: *Provided,* That in case it shall be found that any payment to any such college, university, or public or college-connected agency is in excess of the needs thereof for the purposes hereof, refund of such excess shall be made to the Treasurer of the United States and the amount thereof credited to this appropriation. Loans hereunder shall be made in amounts not exceeding tuition and fees plus $25 per month and not exceeding a total of $500 to any one student during any 12-month period, said loans to be evidenced by notes executed by such students payable to the Treasurer of the United States at a rate interest at 2½ per cent per annum. Repayments of such loans shall be made through the colleges, universities, or other agencies negotiating the loans and covered into the Treasury as miscellaneous receipts: *Provided,* That indebtedness of students who, before completing their courses, are ordered into military service during the present wars under the Selective Training and Service Act of 1940, as amended, or who suffer total and permanent disability or death, shall be canceled. The foregoing loan program shall be administered in accordance with regulations promulgated by the Commissioner of Education with the approval of the Chairman of the War Manpower Commission.

DEVELOPMENTS IN MEDICAL EDUCATION

In the United States sixty-six approved four year medical schools and ten approved schools of the basic medical sciences carry the responsibility for the professional education of the physicians of this country. In times of war these heavy responsibilities are multiplied manyfold. The facilities of the medical schools have been taxed to the utmost by approximately a 10 per cent increase in the size of entering classes and by the institution of the accelerated programs. The loss of many faculty members through active service with the military forces and hospital units and the decrease in the resident personnel of the teaching hospitals have placed even further burdens on the permanent teaching staff.

No basic changes have been made in the established medical curriculum because of the accelerated programs now in operation, although courses have been surveyed and an attempt has been made to eliminate duplication of work and to insure better correlation of subject matter. Innovations have been introduced which are designed to increase the practical value of medical school programs.

Certain subjects peculiar to war have been added to the curriculum. Prominent among the subjects which are being given special attention are military medicine, first aid, tropical medicine, the study and treatment of war wounds and industrial medicine.

Much of the research being conducted in the various departments of the medical schools is directly related to the war effort and is of the utmost importance in connection with the successful prosecution of the war. Such research is demanding an ever increasing amount of time and attention from already greatly depleted faculties.

The budgets of twelve schools have been materially increased. An aggregate annual increase of $424,874 has been allotted to these schools ranging from $1,090 to $95,886. Eight of these schools have received increases in excess of $22,000 and five over $50,000.

Noteworthy improvements in preclinical departments have been made by six schools, providing more satisfactory facilities for both teaching and research.

Improvements affecting clinical teaching were reported by eight schools. These changes include closer affiliation with teaching hospitals, increase in available teaching beds, a new clinic building and other noteworthy developments. Of special significance was the completion of the Western State Psychiatric Hospital, which is the mental teaching unit of the University of Pittsburgh School of Medicine. This hospital will provide about two hundred and fifty beds, which will be available for the instruction of students in psychiatry. The new neuropsychiatric institute at the University of Illinois College of Medicine was dedicated on June 6. Clinical facilities at Boston University School of Medicine were greatly improved as a result of the opening of the new Robert Dawson Evans Memorial building on May 12. This building contains nine floors and is equipped to house the Robert Dawson Evans Memorial for Clinical Research and Preventive Medicine.

The provision for these improvements, as well as many others not reported here, is commendatory in that they reflect continued effort on the part of medical educators of the country to progress in spite of the difficulties under which they are operating at the present time. Every effort is being made to maintain present standards in the training of physicians. The Council on Medical Education and Hospitals of the American Medical Association is gratified by the efforts being made and as always is anxious to be of any assistance possible in the further development of the medical schools.

CURRICULUM

The standard curriculum recognized by the Council on Medical Education and Hospitals and contained in its Essentials of an Acceptable Medical School consists of from three thousand six hundred to four thousand four hundred hours distributed as from nine hundred to one thousand hours per academic year and grouped under nine headings: anatomy, including histology and embryology; physiology; biochemistry; pathology, bacteriology and immunology; pharmacology; hygiene and sanitation; general medicine; general surgery, and obstetrics and gynecology. A certain percentage of the whole number of hours is devoted to each of these groups.

In the present emergency medical schools are conforming to these minimum requirements, although there may be slight deviation as a result of the institution of accelerated programs.

APPROVAL OF SCHOOLS IN CANADA

Following the survey of undergraduate medical schools[2] of the United States and Canada made during 1934-1936 by the Council on Medical Education and

2. Weiskotten, H. G.; Schwitalla, A. M.; Cutter, W. D., and Anderson, H. H.: Medical Education in the United States, Chicago, American Medical Association, 1940.

Hospitals, the secretary was instructed to inquire as to the policy to be adopted in the future regarding the faculties of medicine of Canada; that is, whether the American Medical Association should continue the approval of medical schools in Canada or whether they would prefer that the medical schools themselves or some other body take over this task. The problem was referred to the Canadian Medical Association, which at its annual meeting in June 1938 brought in a report which reads in part as follows:

In the event of the Council on Medical Education of the American Medical Association publishing a list of approved schools, those Canadian schools wishing their inspection and approval could request this inspection. This would leave each school free to deal directly with the Council on Medical Education of the American Medical Association and thus obviate misunderstandings. There seems to be a fairly uniform opinion expressed by the various medical schools in Canada that the Canadian Medical Association should share some responsibility in this country so far as medical education is concerned. The majority of the schools, however, feel that the aims and purposes of the Canadian Medical Association are not primarily those of undergraduate medical education, which is largely a problem of the schools themselves. However, it was recommended that if the Council on Medical Education and Hospitals of the American Medical Association in the future conduct similar surveys at five or ten year intervals, such as the recent survey, the Canadian schools take advantage of and be included in this survey. Those schools which are members of the Association of American Medical Colleges could have a representative from this association included in the personnel of the inspection. The remaining schools which are not members of the Association of American Medical Colleges could ask to have a member of the Association of American Medical Colleges included in the inspecting personnel or some representative from the Committee on Medical Education of the Canadian Medical Association.

It would appear from the foregoing that continued approval of the medical schools of Canada by the Council on Medical Education and Hospitals is a decision which rests with the schools themselves. By resolution, May 13, 1939, the Council voted to include the Canadian medical schools in the lists of approved schools maintained by it only at their request. The Council is willing as in the past to serve the medical schools of Canada.

PRELIMINARY EDUCATION

The Council on Medical Education and Hospitals in setting up its minimum subject requirements for admission to approved medical schools does not specify the number of hours required but rather refers to satisfactory courses in biology, physics and chemistry, including organic chemistry. Some of the medical schools still require a specific number of semester hours in these subjects. However, the general trend is to avoid rigidity and to deal with the subjects in terms of satisfactory courses. While the minimum requirement of collegiate credit advocated by the Council is two years of college training, which include English and theoretical and practical courses in physics, biology and general and organic chemistry, three years or more in college is recommended.

As a guide to medical schools in the selection of students and also to assist the prospective medical student in choosing a college for his premedical training, the Council publishes a compilation of approved colleges of arts and sciences. This list comprises colleges approved by the following national and regional educational associations:

Association of American Universities
North Central Association of Colleges and Secondary Schools
Middle States Association of Colleges and Secondary Schools
New England Association of Colleges and Secondary Schools
Southern Association of Colleges and Secondary Schools
Northwest Association of Secondary and Higher Schools

Seven hundred and nineteen colleges are approved by these agencies, as follows:

Association of American Universities	314
North Central	257
Southern	210
Middle States	128
Northwest	60
New England	45

All but nineteen of those approved by the Association of American Universities are also recognized by their district agency. This dual approval of two hundred and ninety-five institutions is thus apportioned:

North Central	119
Middle States	69
Southern	58
New England	31
Northwest	18

The five regional associations of colleges referred to cover among them the entire United States with the exception of the far Southwest.

Junior colleges are approved by these agencies but are omitted from the Council's compilation, because the Council itself recommends three years of college preliminary to entrance into medical school and because all but a negligible percentage of medical students have actually obtained three years or more in college.

In connection with the matter of acceptance by a medical school this list of approved colleges has been found useful, but the regulations of state departments of education and the rules of individual schools usually form a basis for accreditation of premedical work.

TABLE 6.—*Requirements for Admission to Medical Schools, 1936-1942*

		Years				
	Degree	Four	Three*	Three	Two and One-Half	Two
1936-1937	4	1	3	36	1	32
1937-1938	5	1	4	39	1	27
1938-1939	5	1	5	45	2	19
1939-1940	5	1	5	55	..	11
1940-1941	6	1	5	56	..	9
1941-1942	5	1	5	58	..	8
1942-1943	4	1	4	60	..	7

* Baccalaureate degree conferred in absentia at end of first medical year

For the session 1942-1943, sixty-nine medical schools in the United States have preliminary requirements in excess of the minimum. Of these four required a degree, one required four years, four schools will admit students with three years of college work if the baccalaureate degree is conferred in absentia at the end of the first year in medicine, and sixty schools required three years of college work. Only seven schools have a stated two year requirement. These schools are the Universities of Arkansas, Howard, Louisville, Harvard, Buffalo, Pittsburgh and Tennes-

see. In table 6 are presented for six years figures indicating the trend toward increasing admission requirements. George Washington University School of Medicine increased its prerequisite for the present session to three years.

The general trend toward a premedical program involving three or more years of college work is evidence of an appreciation of the importance of liberalizing preprofessional educational programs. Aside from

TABLE 7.—*Freshman Students Admitted with Less Than Three Years of College Preparation*

	Number of Schools With Two Year Requirement	Percentage of Freshman Enrolment
1936-1937	32	12.5
1937-1938	27	7.4
1938-1939	19	3.8
1939-1940	11	2.0
1940-1941	9	1.4
1941-1942	8	1.2

including satisfactory courses in the specific subjects which are fundamental to the initiation of the study of medicine, premedical education should offer students an opportunity to do advanced work in subjects in which they are especially interested. The field of medicine is today so broad that it offers unusual opportunities for students who have a special interest and advanced training in a wide variety of subjects.

Actually but 1.2 per cent (table 7) of the entire freshman class of 1941-1942 was admitted with less than three years of college work. Of the eight schools with a two year requirement for this session, three admitted none on this basis, one admitted four, another five, one

TABLE 8.—*Requirements of Preliminary Training by Medical Licensing Boards*

Two Years or More of College		
Alabama	Louisiana	Oklahoma
Alaska	Maine	Oregon
Arizona	Maryland	Pennsylvania
Arkansas	Michigan	Puerto Rico
Colorado	Minnesota	Rhode Island
Delaware	Mississippi	South Carolina
District of Columbia	Missouri	South Dakota
Florida	Montana	Tennessee
Georgia	Nevada	Texas
Hawaii	New Hampshire	Utah
Idaho	New Jersey	Vermont
Illinois	New Mexico	Virginia
Indiana	New York	Washington
Iowa	North Carolina	West Virginia
Kansas	North Dakota	Wisconsin
Kentucky	Ohio	Wyoming
One Year of College		
California		Connecticut
High School Graduation or Its Equivalent		
Massachusetts		Nebraska

accepted fifteen, another seventeen, while one school accepted thirty-four such students, a total of seventy-five. Thus seventy-five students were enrolled in five schools with two years of college work, although in each case they represent less than 50 per cent of the freshman class. In 1936-1937, 12.5 per cent of the entering class had only the minimum of preliminary education, but by 1938-1939 the number dropped to 3.8 per cent and in 1941-1942 to 1.2 per cent.

Entrance requirements have been progressively raised, and it is to be hoped that no institution will find it necessary to lower its requirements during the present emergency.

The faculties of medicine in Canada vary in their premedical requirement. Two require a collegiate degree, two have a six year medical course preceded by senior matriculation which is equivalent to the work of the first year in a college of arts, and five, including one school offering courses in the basic sciences, require two years, while one school requires three years before beginning a four year course.

A table appears later in this study which records the number of graduates of 1942 holding baccalaureate degrees (table 24).

With but four exceptions, namely California, Connecticut, Massachusetts and Nebraska, the state licensing boards exact the two year requirement. These states, however, with the exception of Massachusetts and Illinois, do not license other than graduates of approved schools, all of whom in the last decade, at least, have required two years or more of college training. Table 8 records the preliminary training required by each state medical licensing board, the District of Columbia, Alaska, Hawaii and Puerto Rico.

MEDICAL SCHOOLS AND SCHOOLS OF THE BASIC MEDICAL SCIENCES

Medical schools and schools of the basic medical sciences approved by the Council on Medical Education and Hospitals of the American Medical Association during the session 1941-1942 are listed in tables 9 and 10, pages 1270, 1271 and 1272. In addition to the name and location of the school there is recorded the number of years of college training required for admission by each school for the session 1942-1943, the enrolment by classes for the session just closed including figures indicating the number of fifth year students interning or engaged in research, the total attendance, and the number of graduates receiving the degree of Doctor of Medicine during the period July 1, 1941 to July 1, 1942. The name of the dean or acting dean of each school is also given. Figures for the sixth year enrolment in Canadian schools are given in a footnote. The fifth year (internship) enrolment is not included in the column giving the total number of students by classes.

Changes in the classification of medical schools that have taken place since the publication of the educational statistics in 1941,[3] as well as those whose approval was formerly on a probationary status and has not been changed, can be noted in footnotes at the bottom of these tables and refer to those schools which are marked by asterisks preceding the name. Five medical schools are in this category.

The University of Chicago School of Medicine and Rush Medical College do not report their students by classes, and in this tabulation only the total enrolment is given.

The University of California Medical School has discontinued the internship requirement affecting the class of 1942 and awarded degrees to fifty-five students who completed the course in 1941 and served internships during 1941-1942 and to fifty-six who completed four years of work in 1942, a total of 111.

Undergraduate courses in the clinical years which have been taught at Rush Medical College, Chicago, since 1837 terminated in 1942. During 1940-1941 arrangements were entered into by the trustees of Rush Medical College, the trustees of the University of Chicago, the trustees of the University of Illinois and the board of managers of the Presbyterian Hospital whereby

(Continued on page 1272)

3. J. A. M. A. **117**: 687, 689 (Aug. 30) 1941.

TABLE 9.—*Recognized Medical Schools in the United States and Canada*

	Name and Location of School	1942-1943 Preliminary Requirement by Years	Students by Classes, Session 1941-1942						Graduates Since July 1, 1941	Executive Officer	
			1st Year	2d Year	3d Year	4th Year	5th Year or Intern Year	Totals			
	ARKANSAS										
1	*University of Arkansas School of Medicine, Little Rock	2	82	74	70	66	...	292	66	Byron L. Robinson, M.D., Dean	1
	CALIFORNIA										
2	University of California Medical School, Berkeley-San Francisco	3	72	63	62	56	55‡§	253	111	Francis Scott Smyth, M.D., Dean	2
3	College of Medical Evangelists, Loma Linda-Los Angeles	3	82	78	66	83	77†	309	77	E. H. Risley, M.D., Dean, Loma Linda; W. F. Norwood, Ph.D., Assistant Dean, Los Angeles	3
4	University of Southern California School of Medicine, Los Angeles	3	56	50	51	51	49†	208	49	Seeley G. Mudd, M.D., Dean	4
5	Stanford University School of Medicine, Stanford University-San Francisco	3	62	60	60	60	58†	242	57	Loren Roscoe Chandler, M.D., Dean	5
	COLORADO										
6	University of Colorado School of Medicine, Denver	3	62	54	50	51	...	217	51	Maurice H. Rees, M.D., Dean	6
	CONNECTICUT										
7	Yale University School of Medicine, New Haven	3	50	55	50	51	...	206	51	Francis G. Blake, M.D., Dean	7
	DISTRICT OF COLUMBIA										
8	Georgetown University School of Medicine, Washington	3	80	65	68	86	...	299	85	David V. McCauley, S.J., Ph.D., Dean	8
9	George Washington University School of Medicine, Washington	3	79	60	74	72	...	285	72	Walter A. Bloedorn, M.D., Dean	9
10	Howard University College of Medicine, Washington	2	75	49	27	35	...	186	35	John W. Lawlah, M.D., Dean	10
	GEORGIA										
11	Emory University School of Medicine, Atlanta	3	68	48	53	49	...	218	49	Russell H. Oppenheimer, M.D., Dean	11
12	**University of Georgia School of Medicine, Augusta	3	75	48	47	42	...	212	42	G. Lombard Kelly, M.D., Dean	12
	ILLINOIS										
13	Loyola University School of Medicine, Chicago	3	88	67	57	63	60†	275	67	Francis J. Braceland, M.D., Dean	13
14	Northwestern University Medical School, Chicago	3	131	127	160	139	152†	557	159	J. Roscoe Miller, M.D., Dean	14
15	University of Chicago, Rush Medical College	...	...	...	...	...	...	109¶	108	Earle Gray, M.D., Acting Dean	15
16	University of Chicago, The School of Medicine	3	...	...	...	...	...	286¶	65	Victor Johnson, M.D., Dean of Students	16
17	University of Illinois College of Medicine, Chicago	3	168	168	152	150	...	638	165	David J. Davis, M.D., Dean	17
	INDIANA										
18	Indiana University School of Medicine, Bloomington-Indianapolis	3	140	139	114	114	...	507	108	Willis D. Gatch, M.D., Dean	18
	IOWA										
19	State University of Iowa College of Medicine, Iowa City	3	100	68	68	46	...	282	46	Ewen Murchison MacEwen, M.D., Dean	19
	KANSAS										
20	University of Kansas School of Medicine, Lawrence-Kansas City	3	84	87	82	82	...	335	81	H. R. Wahl, M.D., Dean	20
	KENTUCKY										
21	University of Louisville School of Medicine, Louisville	2	97	83	92	88	...	360	88	John Walker Moore, M.D., Dean	21
	LOUISIANA										
22	Louisiana State University School of Medicine, New Orleans	3	99	80	81	85	...	345	85	Beryl I. Burns, M.D., Dean	22
23	Tulane University of Louisiana School of Medicine, New Orleans	3	138	114	122	122	...	496	121	Hiram W. Kostmayer, M.D., Acting Dean	23
	MARYLAND										
24	Johns Hopkins University School of Medicine, Baltimore	Degree	74	68	73	75	...	290	75	Alan M. Chesney, M.D., Dean	24
25	University of Maryland School of Med. and Coll. of Phys. and Sur., Baltimore	3	104	86	98	85	...	373	85	H. Boyd Wylie, M.D., Acting Dean	25
	MASSACHUSETTS										
26	Boston University School of Medicine, Boston	3	70	50	47	50	...	217	52	Bennett F. Avery, M.D., Dean	26
27	Harvard Medical School, Boston	2	127	127	145	134	...	533	129	C. Sidney Burwell, M.D., Dean	27
28	Tufts College Medical School, Boston	Degree	110	101	97	94	...	402	94	Dwight O'Hara, M.D., Acting Dean	28
	MICHIGAN										
29	University of Michigan Medical School, Ann Arbor	3	133	118	100	105	...	456	105	A. C. Furstenberg, M.D., Dean	29
30	Wayne University College of Medicine, Detroit	3 & Degree	64	57	64	68	55†	253	52	Edgar H. Norris, M.D., Dean	30
	MINNESOTA										
31	University of Minnesota Medical School, Minneapolis	3	140	116	115	106	125†	477	117	Harold S. Diehl, M.D., Dean	31
	MISSOURI										
32	St. Louis University School of Medicine, St. Louis	3	124	112	106	101	...	443	94	Alphonse M. Schwitalla, S.J., Ph.D., Dean	32
33	Washington University School of Medicine, St. Louis	4	81	83	102	93	...	359	93	Philip A. Shaffer, Ph.D., Dean	33

	NEBRASKA										
34	Creighton University School of Medicine, Omaha	3	70	60	43	51	...	224	52	Charles M. Wilhelmj, M.D., Dean	34
35	University of Nebraska College of Medicine, Omaha	3	98	77	76	70	...	321	69	C. W. M. Poynter, M.D., Dean	35
	NEW YORK										
36	Albany Medical College, Albany	3	44	38	34	34	...	150	33	R. S. Cunningham, M.D., Dean	36
37	Long Island College of Medicine, Brooklyn	3	108	97	90	90	...	385	90	Jean A. Curran, M.D., Dean	37
38	University of Buffalo School of Medicine, Buffalo	2	79	64	71	61	...	275	61	Edward W. Koch, M.D., Dean	38
39	Columbia University College of Physicians and Surgeons, New York	3	126	111	93	96	...	428	95	Willard C. Rappleye, M.D., Dean	39
40	Cornell University Medical College, New York	3 & Degree	83	75	78	75	...	311	75	Joseph C. Hinsey, Ph.D., Dean	40
41	New York Medical College, Flower and Fifth Avenue Hospitals, New York	Degree	96	85	70	77	...	328	77	J. A. W. Hetrick, M.D., Dean	41
42	New York University College of Medicine, New York	3	136	120	123	127	...	506	125	Currier McEwen, M.D., Dean	42
43	University of Rochester School of Medicine and Dentistry, Rochester	3	66	62	56	44	...	228	44	George H. Whipple, M.D., Dean	43
44	Syracuse University College of Medicine, Syracuse	3	56	40	41	34	...	171	34	H. G. Weiskotten, M.D., Dean	44
	NORTH CAROLINA										
45	Duke University School of Medicine, Durham	3	76	62	60	64	65‡	262	64	Wilburt C. Davison, M.D., Dean	45
	OHIO										
46	University of Cincinnati College of Medicine, Cincinnati	3	83	70	76	78	...	307	77	Stanley Dorst, M.D., Dean	46
47	Western Reserve University School of Medicine, Cleveland	3 & Degree	87	72	73	61	...	293	60	Torald Sollmann, M.D., Dean	47
48	Ohio State University College of Medicine, Columbus	3	84	73	67	80	...	304	79	Leslie L. Bigelow, M.D., Acting Dean	48
	OKLAHOMA										
49	University of Oklahoma School of Medicine, Oklahoma City	3	66	54	60	55	...	235	55	Robert U. Patterson, M.D., Dean	49
	OREGON										
50	University of Oregon Medical School, Portland	3	75	69	65	51	...	260	51	D. W. E. Baird, M.D., Acting Dean	50
	PENNSYLVANIA										
51	Hahnemann Medical College and Hospital of Philadelphia	3	149	134	127	131	...	541	130	William A. Pearson, M.D., Dean	51
52	Jefferson Medical College of Philadelphia	Degree	136	121	142	131	...	530	131	William H. Perkins, M.D., Dean	52
53	Temple University School of Medicine, Philadelphia	3	107	102	121	117	...	447	117	William N. Parkinson, M.D., Dean	53
54	University of Pennsylvania School of Medicine, Philadelphia	3	129	105	132	130	...	496	129	William Pepper, M.D., Dean	54
55	Woman's Medical College of Pennsylvania, Philadelphia	3	40	36	21	17	...	114	18	Margaret D. Craighill, M.D., Dean	55
56	University of Pittsburgh School of Medicine, Pittsburgh	2	87	82	73	73	...	315	73	William S. McElroy, M.D., Dean	56
	SOUTH CAROLINA										
57	Medical College of the State of South Carolina, Charleston	3	50	41	48	44	...	183	43	Robert Wilson, M.D., Dean	57
	TENNESSEE										
58	University of Tennessee College of Medicine, Memphis	2	150	108	114	98	...	470	98	O. W. Hyman, Ph.D., Dean	58
59	Meharry Medical College, Nashville	3	69	61	51	50	...	231	50	Michael J. Bent, M.D., Dean	59
60	Vanderbilt University School of Medicine, Nashville	3 & Degree	52	47	51	52	...	202	51	Waller S. Leathers, M.D., Dean	60
	TEXAS										
61	Baylor University College of Medicine, Dallas	3	84	82	78	77	...	321	75	Walter H. Moursund, M.D., Dean	61
62	***University of Texas Medical Branch, Galveston	3	98	98	89	99	...	384	99	John W. Spies, M.D., Dean	62
	VERMONT										
63	University of Vermont College of Medicine, Burlington	3	33	31	32	31	...	127	31	Clarence H. Beecher, M.D., Dean	63
	VIRGINIA										
64	University of Virginia Department of Medicine, Charlottesville	3	75	51	61	62	...	249	62	Harvey E. Jordan, Ph.D., Dean	64
65	Medical College of Virginia, Richmond	3	87	78	73	64	...	302	64	Jacques P. Gray, M.D., Dean	65
	WISCONSIN										
66	University of Wisconsin Medical School, Madison	3	82	66	65	44	...	257	45	Walter J. Meek, Ph.D., Acting Dean	66
67	Marquette University School of Medicine, Milwaukee	3	98	84	78	72	71†	332	70	Eben J. Carey, M.D., Dean	67
	CANADA										
68	University of Alberta Faculty of Medicine, Edmonton, Alta	2	...	37	39	38	33‡	194	47	John James Ower, M.D., Acting Dean	68
69	University of Manitoba Faculty of Medicine, Winnipeg, Man	2	59	50	60	54	52†	223	54	A. T. Mathers, M.D., Dean	69
70	Dalhousie University Faculty of Medicine, Halifax, N. S.	2	50	39	37	38	42†	164	42	H. G. Grant, M.D., Dean	70
71	Queen's University Faculty of Medicine, Kingston, Ont	1	45	48	42	46	43‡	266	41	Frederick Etherington, M.D., Dean	71
72	University of Western Ontario Medical School, London, Ont	2	50	40	36	33	29‡	224	36	F. J. H. Campbell, M.D., Dean	72
73	University of Toronto Faculty of Medicine, Toronto, Ont	1	206	137	128	110	107‡	804	116	W. E. Gallie, M.D., Dean	73
74	McGill University Faculty of Medicine, Montreal, Que	3	109	99	99	90	...	397	90	J. C. Meakins, M.D., Dean	74
75	University of Montreal Faculty of Medicine, Montreal, Que	Degree	59	48	53	49	51†	209	48	Albert LeSage, M.D., Dean	75
76	Laval University Faculty of Medicine, Quebec, Que	Degree	94	64	59	45	62	324	65	Charles Vézina, M.D., Dean	76

Statistics of Recognized Schools of the Basic Medical Sciences will be found in table 10, page 1272.

* On probation since Dec. 4, 1939.

** Approval withdrawn Feb. 15, 1942 without prejudice to the students enrolled as of Sept. 1, 1942, thus providing protection for all graduates up to and including June 1945.

*** On probation since June 6, 1942.

¶ Enrolment not on above table by classes for the two medical schools of the University of Chicago.

† Fifth year (internship) enrolment not included in total column.

‖ Fifth year internship discontinued beginning with the class of 1942.

‡ Two year internship required after graduation.

Sixth year enrolment: Alberta, 47; Queen's, 40; Western Ontario, 36; Toronto, 116.

(Continued from page 1269)

the University of Chicago returned to the trustees of Rush Medical College the property and funds belonging to the college. The Rush property, buildings and equipment were leased to the Presbyterian Hospital to be maintained by them for the purpose of medical education and research. The Presbyterian Hospital entered into an affiliation with the University of Illinois providing for the teaching of undergraduate students of the University of Illinois in the wards of the Presbyterian Hospital, the Central Free Dispensary and the Rush buildings. The staff of the Presbyterian Hospital joins the faculty of the medical school of the University of Illinois. A newly constituted board of trustees of Rush Medical College will continue to conserve the funds and property of Rush Medical College. This board retains the Rush charter and name and ownership of the Rush buildings, equipment, library and certain funds and the power to appoint a faculty as needed. Under this plan, Rush Medical College is at liberty to use its name with any postgraduate or graduate project or research for which funds may be provided. Thus the name of Rush Medical College will be perpetuated. For more than a century Rush Medical College has made outstanding contributions in the field of medical education. Its thousands of graduates have been and are a distinguished group.

The data presented in tables 9 and 10 constitute the basis for several of the subsequent tabulations. Historical information regarding all institutions on the approved list of medical schools maintained by the Council on Medical Education and Hospitals will be found beginning on page 1283.

In table 9 are listed sixty-seven medical schools in the United States and nine faculties of medicine in Canada; in table 10, ten approved schools of the basic medical sciences in the United States and one in Canada.

The freshman enrolment in eighty-five medical schools of the United States and Canada for the session 1941-1942 was 6,914; the sophomore enrolment numbered 5,992, juniors 5,640, seniors 5,445, and fifth and sixth year students in Canadian schools 276 and 239 respectively. The school of medicine of the University of Chicago and Rush Medical College enrolled 109 and 269 students respectively. Altogether, 24,884 students were studying medicine in the medical schools of the United States and Canada during the session 1941-1942.

Of the medical students shown in these tabulations, 22,031 were pursuing medical courses in the United States. Of this number 6,218 were enrolled as freshmen, 5,406 as sophomores, 5,087 as juniors, 4,942 as seniors and 378 were students at the two Chicago schools that have been mentioned. Including fifth or intern year students, the total would be 22,798. The enrolment in the schools of the basic medical sciences numbered 639, of which 344 were freshmen and 295 sophomores.

The enrolment in the Canadian medical schools included first year 696, second year 586, third year 553, fourth year 503, fifth year 276 and sixth year 239, a total of 2,853. In the one school of the basic medical sciences in Canada there were 48 students: 24 freshmen and 24 sophomores.

TABLE 10.—*Recognized Schools of the Basic Medical Sciences in the United States and Canada*

	Name and Location of School	1942-1943 Preliminary Requirement by Years	Students by Classes, Session 1941-1942			Executive Officer	
			1st Year	2d Year	Totals		
	ALABAMA						
1	University of Alabama School of Medicine, University (Tuscaloosa)	3	51	47	98	Stuart Graves, M.D., Dean	1
	MISSISSIPPI						
2	University of Mississippi School of Medicine, University	3	28	27	55	B. S. Guyton, M.D., Dean	2
	MISSOURI						
3	University of Missouri School of Medicine, Columbia	3	37	34	71	Dudley S. Conley, M.D., Dean	3
	NEW HAMPSHIRE						
4	Dartmouth Medical School, Hanover	3	22	24	46	John P. Bowler, M.D., Dean	4
	NORTH CAROLINA						
5	University of North Carolina School of Medicine, Chapel Hill	3	46	40	86	W. Reece Berryhill, M.D., Dean	5
6	Bowman Gray School of Medicine of Wake Forest College, Winston-Salem	3	43	30	73	C. C. Carpenter, M.D., Dean	6
	NORTH DAKOTA						
7	*University of North Dakota School of Medicine, Grand Forks	3	27	26	53	H. E. French, M.D., Dean	7
	SOUTH DAKOTA						
8	*University of South Dakota School of Medical Sciences, Vermillion	3	23	17	40	Joseph C. Ohlmacher, M.D., Dean	8
	UTAH						
9	University of Utah School of Medicine, Salt Lake City	3	37	29	66	C. B. Freudenberger, M.D., Act. Dean	9
	WEST VIRGINIA						
10	West Virginia University School of Medicine, Morgantown	3	30	21	51	Edward J. Van Liere, M.D., Dean	10
	CANADA						
11	University of Saskatchewan School of Medical Sciences, Saskatoon, Sask.	2	24	24	48	W. S. Lindsay, M.B., Dean	11

* On probation since May 13, 1939.

The degree of Doctor of Medicine during the period July 1, 1941 to July 1, 1942 has been awarded to 5,702 students; 5,163 received the degree from medical schools in the United States and 539 from Canadian faculties of medicine.

No school of the basic medical sciences had an enrolment over 100. The lowest enrolment among the schools offering the complete course was 114 students at the Woman's Medical College of Pennsylvania and the highest 804 at the University of Toronto Faculty of Medicine. The highest among schools of the United States was 638 at the University of Illinois College of Medicine. Dartmouth Medical School, a school of the basic medical sciences, enrolled the fewest number of students, 40, representing 23 freshmen and 17 sophomores.

The Woman's Medical College of Pennsylvania likewise graduated the lowest number of graduates, 18, and the University of Illinois granted the greatest number of degrees, 165. Fourteen schools granted degrees to classes of fewer than 50, thirty-nine graduated between 51 and 100 each, twelve between 101 and 150 and two

more than 151. In Canada one school graduated more than 100 students, while in three schools each there were between 51 and 100 graduates, and five had fewer than 50 graduates.

A cursory review of those now administering the affairs of medical schools reveals that within the last few years many changes have taken place. Only twenty-five of the seventy-six deans have been in their present administrative positions for twenty years or more. Of those sixteen have similarly served for fifteen or more years. The oldest dean in point of service is Dr. Robert Wilson, who has served as dean of the Medical College of the State of South Carolina since 1908. Four medical school deans are now with the armed forces, and their duties have been taken over by men serving in an acting capacity. Other deans are making notable contributions by devoting a considerable amount of time as members of committees responsible for various aspects of the war effort. The Council regrets the loss from the list of deans of such names as Dr. Paul S. McKibben of the University of Southern California and Dr. L. L. Daines of the University of Utah, who died during the past year; those of Dr. Percy Magan of the College of Medical Evangelists and Dr. William S. Ladd of Cornell University, who relinquished their duties because of ill health, and Dr. Lee E. Sutton Jr. of the Medical College of Virginia, who will continue in a professorial position. The Council welcomes to the administrative field of medical education those who have been appointed to deanships in the last academic year and offers to them and to those serving as acting deans its whole hearted support and cooperation.

ENROLMENT, 1942-1943

With most of the schools already in session under the accelerated program, the figures presented in table 11 giving the enrolment of students at the present time and estimated figures for those who will begin the study of medicine in September 1942 will be of interest. With allowance for failures and discontinuance of their studies for other reasons, figures were presented earlier in this study (table 3) estimating the numbers of these students who will be graduated within the next three years. There are at the present time, or will be by October 1942, 22,674 students enrolled in the medical schools of the United States, representing 6,382 freshmen, 5,836 sophomores, 5,326 juniors and 5,130 seniors. The medical schools which are not operating under an accelerated program are the University of Arkansas, University of North Dakota and Howard and Baylor universities.

BIRTH PLACE OF STUDENTS

In table 12 the birthplace of medical students of the United States and Canada in attendance during 1941-1942 is shown by schools. The state furnishing the greatest number of students according to state of birth was New York with 2,711 students, followed by Pennsylvania with 1,934, Illinois with 1,268 and Ohio with 1,127. Every state and the District of Columbia is represented in this table. It should not be inferred that every medical student enrolled in a state other than that of his birth is still a resident of his natal state. Still less should it be assumed that every one of these students has become a legal resident of the state in which his professional studies are assumed. According to state of birth, in addition to those mentioned, there was from each of four states a student enrolment of between 701 and 1,000, from three states 501 to 700, from seven states between 401 and 500 and between 301 and 400, from eight states 201 to 300, from eleven states between 101 and 200 and from five states less than 100 each.

There were 231 born in the United States territories and possessions studying in fifty-one schools in the United States, and 1 each studying in two schools in Canada. In addition, 2,577 of Canadian birth were also studying medicine, 135 of whom were matriculated in forty-four schools in the United States and 2,442 in ten Canadian medical schools. Twenty students of Canadian birth were registered at the College of Medical Evangelists and 15 at Wayne University College of Medicine. Other schools registered fewer than 8.

TABLE 11.—*Enrolment, 1942-1943*

	1st Year	2d Year	3d Year	4th Year
University of Alabama	58	51	...	...
University of Arkansas	82	74	70	66
University of California	72	72	72	72
College of Medical Evangelists	95	73	75	66
University of Southern California	63	54	52	51
Stanford University	62	60	60	60
University of Colorado	61	54	58	49
Yale University	59	53	51	47
Georgetown University	104	69	65	68
George Washington University	75	75	65	74
Howard University	75	49	27	35
Emory University	68	54	50	53
University of Georgia	75	72	46	46
Loyola University	88	82	70	54
Northwestern University	130	133	150	156
University of Chicago	65	60	60	45
University of Illinois	166	173	163	152
Indiana University	130	120	115	114
State University of Iowa	100	79	66	65
University of Kansas	75	90	87	82
University of Louisville	93	91	89	92
Louisiana State University	100	84	82	83
Tulane University	140	123	125	120
Johns Hopkins University	78	68	73	74
University of Maryland	96	91	90	88
Boston University	68	63	46	46
Harvard Medical School	125	135	140	145
Tufts College	111	104	101	96
University of Michigan	160	113	121	100
Wayne University	80	74	60	64
University of Minnesota	126	125	113	114
University of Mississippi	30	30	...	...
St. Louis University	130	109	112	111
University of Missouri	45	31	...	...
Washington University	84	76	115	98
Creighton University	70	65	60	44
University of Nebraska	95	88	75	74
Dartmouth Medical School	24	21	...	...
Albany Medical College	44	39	37	34
Long Island College	104	106	97	90
University of Buffalo	78	72	63	70
Columbia University	115	125	107	96
Cornell University	84	74	80	76
New York Medical College	96	85	85	69
New York University	135	125	120	124
University of Rochester	65	64	61	57
Syracuse University	56	47	40	42
Duke University	68	70	60	61
University of North Carolina	49	42	...	...
Bowman Gray School of Medicine	50	36	33	...
University of North Dakota	28	26	...	...
University of Cincinnati	85	76	73	77
Western Reserve University	92	78	69	74
Ohio State University	80	75	72	68
University of Oklahoma	75	55	53	60
University of Oregon	75	71	64	65
Hahnemann Medical College	150	140	135	130
Jefferson Medical College	157	127	135	142
Temple University	118	103	123	139
University of Pennsylvania	133	115	133	132
Woman's Medical College	45	39	27	22
University of Pittsburgh	87	84	84	73
Medical College of South Carolina	50	45	50	50
University of South Dakota	27	24	...	...
University of Tennessee	140	135	126	114
Meharry Medical College	65	66	62	50
Vanderbilt University	53	52	51	51
Baylor University	84	76	80	76
University of Texas	100	107	98	89
University of Utah	40	36	...	...
University of Vermont	36	33	34	32
University of Virginia	78	70	60	61
Medical College of Virginia	80	80	72	71
West Virginia University	30	26	...	...
University of Wisconsin	72	80	57	62
Marquette University	100	95	72	78
Totals	6,382	5,836	5,326	5,130

(Continued on page 1276)

TABLE 12.—*Birth Place*

Marginal Number		Alabama	Arizona	Arkansas	California	Colorado	Connecticut	Delaware	Dist. of Columbia	Florida	Georgia	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky	Louisiana	Maine	Maryland	Massachusetts	Michigan	Marginal Number
1	University of Alabama School of Medicine	78	..	..	..	..	..	..	..	4	2	..	1	..	..	..	..	..	..	..	..	..	1
2	University of Arkansas School of Medicine	..	..	197	..	..	..	..	..	4	3	..	3	4	..	5	3	7	..	..	1	1	2
3	University of California Medical School	1	..	..	122	3	3	1	1	..	..	4	11	3	..	1	..	..	..	..	..	1	3
4	College of Medical Evangelists	1	1	..	57	8	2	1	7	4	1	4	8	3	8	8	1	..	1	6	7	15	4
5	Univ. of Southern California School of Medicine	..	6	1	86	6	..	1	..	..	..	..	6	6	2	2	..	..	..	..	2	..	5
6	Stanford University School of Medicine	1	2	1	125	2	1	..	1	..	..	1	6	..	3	4	..	..	..	2	2	2	6
7	University of Colorado School of Medicine	..	..	1	2	129	1	..	..	..	..	..	6	3	2	5	..	1	..	..	1	2	7
8	Yale University School of Medicine	1	..	..	5	4	42	..	1	..	2	..	5	1	2	3	..	..	..	1	16	5	8
9	Georgetown University School of Medicine	1	..	..	4	..	17	1	19	1	1	1	1	..	..	1	..	..	3	7	17	..	9
10	George Washington Univ. School of Medicine	3	..	..	13	1	5	..	95	1	1	5	2	2	2	..	2	..	..	11	4	3	10
11	Howard University College of Medicine	3	1	2	2	..	2	2	20	3	8	..	3	4	1	..	1	10	1	3	3	.	11
12	Emory University School of Medicine	19	..	..	..	1	..	1	..	17	120	..	1	1	..	1	..	2	..	..	1	..	12
13	University of Georgia School of Medicine	3	..	..	..	1	..	..	..	4	182	..	..	1	..	..	2	..	..	1	..	..	13
14	Loyola University School of Medicine	1	..	1	7	1	4	1	..	1	..	..	128	12	13	1	..	..	1	1	3	11	14
15	Northwestern University Medical School	4	8	3	13	9	1	..	1	1	..	12	172	25	13	18	6	1	..	2	2	20	15
16	University of Chicago, Rush Medical College	1	1	..	2	1	2	..	..	..	..	3	14	4	5	2	..	..	..	..	1	1	16
17	University of Chicago, The School of Medicine	3	..	2	4	5	2	..	1	..	1	7	73	15	7	5	3	1	..	..	2	11	17
18	University of Illinois College of Medicine	2	..	..	..	..	2	..	..	..	..	..	492	10	8	3	1	1	..	1	2	11	18
19	Indiana University School of Medicine	1	..	..	2	2	3	..	..	2	..	1	13	406	1	1	7	..	1	1	..	3	19
20	State University of Iowa College of Medicine	..	..	..	..	..	..	..	..	2	..	..	7	2	226	1	..	..	..	..	2	4	20
21	University of Kansas School of Medicine	..	..	1	7	1	1	..	1	..	..	..	7	1	1	227	4	..	..	1	1	3	21
22	University of Louisville School of Medicine	8	4	2	5	1	2	..	..	1	3	5	8	24	3	..	140	..	1	1	2	4	22
23	Louisiana State University School of Medicine	8	..	7	3	2	1	..	1	5	3	..	6	..	2	2	4	202	1	..	..	1	23
24	Tulane Univ. of Louisiana School of Medicine	47	5	10	6	1	..	..	..	31	14	..	..	..	..	1	14	148	..	..	2	..	24
25	Johns Hopkins University School of Medicine	4	..	1	6	1	7	2	7	4	6	..	10	4	1	..	4	..	5	56	15	4	25
26	University of Maryland School of Medicine	2	2	..	3	..	8	..	10	2	6	..	5	1	..	1	1	..	135	11	1	26
27	Boston University School of Medicine	..	..	..	3	..	16	..	..	..	..	..	..	2	..	..	..	..	10	1	120	1	27
28	Harvard Medical School	6	2	2	16	8	17	..	..	8	4	8	1	29	6	3	4	6	2	7	4	97	8	28
29	Tufts College Medical School	..	..	..	..	..	28	..	..	2	..	..	..	1	..	..	..	..	19	..	288	..	..	29
30	University of Michigan Medical School	1	..	..	3	4	1	..	..	2	2	..	2	17	10	8	2	2	1	1	..	2	236	30
31	Wayne University College of Medicine	1	1	..	..	..	3	..	..	..	1	..	8	1	3	..	1	..	..	..	..	5	154	31
32	University of Minnesota Medical School	..	..	..	..	1	..	..	..	1	..	3	10	2	8	..	1	..	..	..	2	4	..	32
33	University of Mississippi School of Medicine	3	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	..	..	..	..	..	..	33
34	University of Missouri School of Medicine	..	1	1	1	..	..	..	..	1	..	1	..	1	..	..	..	1	..	..	..	..	..	34
35	St. Louis University School of Medicine	1	3	1	24	4	4	..	..	..	..	5	48	15	12	7	3	..	1	..	11	8	35
36	Washington University School of Medicine	14	..	5	18	8	..	..	..	2	3	1	6	34	4	8	14	1	..	..	1	3	6	36
37	Creighton University School of Medicine	..	1	..	44	6	1	..	1	..	..	3	4	..	28	8	..	..	..	..	3	1	37
38	University of Nebraska College of Medicine	1	..	..	4	5	..	..	1	..	..	2	8	4	14	5	..	1	1	..	..	..	38
39	Dartmouth Medical School	..	..	..	..	1	2	..	1	1	..	..	1	..	..	..	..	..	..	..	8	2	39
40	Albany Medical College	..	..	..	1	4	1	..	..	..	..	..	2	..	..	..	..	1	..	..	6	..	40
41	Long Island College of Medicine	7	..	..	..	15	1	1	..	..	..	..	1	..	..	1	1	..	1	..	6	1	41
42	University of Buffalo School of Medicine	..	..	..	1	1	1	..	..	..	..	1	..	..	..	..	..	..	2	..	3	2	42
43	Columbia Univ. Coll. of Physicians & Surgeons	6	1	4	6	2	10	..	6	2	5	2	7	4	2	1	1	1	6	2	34	4	43
44	Cornell University Medical College	2	1	..	12	1	8	..	..	3	3	..	1	..	2	1	..	..	7	..	19	2	44
45	New York Medical College	..	..	..	2	..	16	..	3	..	..	..	..	..	..	1	1	..	..	1	3	1	45
46	New York University College of Medicine	3	..	..	1	1	16	3	..	3	..	1	..	..	1	1	2	..	1	1	11	..	46
47	Univ. of Rochester School of Med. & Dentistry	..	..	..	16	2	4	1	..	..	..	1	2	..	..	2	2	1	1	1	17	3	47
48	Syracuse University College of Medicine	..	..	..	..	..	2	..	..	..	..	..	3	..	..	1	..	..	1	1	5	1	48
49	University of North Carolina School of Medicine	..	..	..	1	..	1	..	..	3	..	..	..	..	..	..	..	..	..	..	..	..	..	49
50	Duke University School of Medicine	2	..	..	3	..	2	3	3	24	12	1	2	..	1	..	4	..	..	3	5	5	50
51	Bowman Gray School of Medicine	..	1	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	1	51
52	University of North Dakota School of Medicine	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	52
53	University of Cincinnati College of Medicine	3	1	..	8	2	1	1	..	1	..	..	11	10	..	..	26	..	1	..	..	1	53
54	Western Reserve University School of Medicine	1	..	..	4	1	1	1	..	..	..	3	10	1	3	1	2	1	1	..	3	10	54
55	Ohio State University College of Medicine	1	..	..	..	1	..	..	1	..	1	..	4	5	1	1	3	..	..	2	1	1	55
56	University of Oklahoma School of Medicine	4	..	5	2	4	..	..	..	..	..	..	4	4	3	6	..	..	..	..	..	2	56
57	University of Oregon Medical School	..	1	..	12	5	1	..	1	..	..	16	3	3	2	4	1	..	..	..	1	..	57
58	Hahnemann Med. Coll. & Hosp. of Philadelphia	4	3	3	8	..	10	..	..	1	2	..	8	2	5	..	..	..	1	4	15	2	58
59	Jefferson Medical College of Philadelphia	3	..	..	4	..	7	11	..	..	..	..	3	..	5	2	..	2	..	4	2	6	2	59
60	Temple University School of Medicine	2	..	..	6	1	4	4	..	5	..	1	4	2	1	1	..	2	1	3	10	3	60
61	University of Pennsylvania School of Medicine	11	1	..	4	..	6	5	..	2	5	2	5	6	2	..	6	..	5	1	5	1	61
62	Woman's Medical College of Pennsylvania	..	..	..	3	2	2	1	..	..	..	..	9	..	1	..	..	..	..	..	..	2	62
63	University of Pittsburgh School of Medicine	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	2	2	..	63
64	Medical College of the State of South Carolina	3	..	..	..	..	..	..	..	1	..	..	1	..	1	..	1	..	..	..	..	..	64
65	Univ. of South Dakota School of Med. Sciences	..	..	..	1	..	..	..	..	1	..	..	1	..	5	..	..	..	..	..	..	1	65
66	University of Tennessee College of Medicine	22	1	17	3	..	..	..	6	13	..	6	1	..	7	18	5	1	..	3	1	66	
67	Meharry Medical College	13	1	3	..	1	1	6	12	27	..	4	1	..	3	7	12	..	1	1	..	67	
68	Vanderbilt University School of Medicine	20	..	2	2	1	..	1	4	9	..	3	..	..	4	18	1	..	..	..	1	68	
69	Baylor University College of Medicine	2	2	10	3	1	..	2	1	1	..	1	..	..	4	1	3	..	..	1	..	69	
70	University of Texas Medical Branch	..	..	4	1	2	1	..	1	1	3	..	4	..	2	2	1	7	..	1	..	1	70
71	University of Utah School of Medicine	..	1	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	71
72	University of Vermont College of Medicine	..	..	..	..	4	..	..	..	..	..	..	..	..	..	..	..	..	4	1	7	..	72
73	University of Virginia Department of Medicine	7	1	..	..	..	2	4	6	1	..	..	..	..	..	..	3	..	..	3	3	73	
74	Medical College of Virginia	..	1	..	4	1	..	2	4	3	2	..	..	1	..	..	3	..	..	3	2	1	74
75	West Virginia University School of Medicine	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	75
76	University of Wisconsin Medical School	..	..	..	1	1	..	..	..	..	..	2	12	2	5	3	3	..	1	4	4	76	
77	Marquette University School of Medicine	..	1	..	14	2	1	..	2	..	..	3	9	1	3	1	..	1	1	..	2	20	77
78	University of Alberta Faculty of Medicine	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	78
79	University of Manitoba Faculty of Medicine	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	79
80	Dalhousie University Faculty of Medicine	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	80
81	Queen's University Faculty of Medicine	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	..	..	81
82	University of Western Ontario Medical School	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	2	82
83	University of Toronto Faculty of Medicine	..	..	..	..	1	..	..	..	..	..	..	1	1	1	..	1	..	..	..	..	2	83
84	McGill University Faculty of Medicine	..	..	..	16	1	4	..	2	..	1	..	3	1	..	2	..	1	2	..	12	3	84
85	University of Montreal Faculty of Medicine	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	85
86	Laval University Faculty of Medicine	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	2	..	9	..	86
87	Univ. of Saskatchewan School of Medical Sciences	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	87
	Totals	335	54	285	720	256	302	45	220	174	452	103	1268	630	427	379	318	414	105	268	843	610	

of Students

Marginal Number	Minnesota	Mississippi	Missouri	Montana	Nebraska	Nevada	New Hampshire	New Jersey	New Mexico	New York	North Carolina	North Dakota	Ohio	Oklahoma	Oregon	Pennsylvania	Rhode Island	South Carolina	South Dakota	Tennessee	Texas	Utah	Vermont	Virginia	Washington	West Virginia	Wisconsin	Wyoming	U. S. Territories and Possessions	Canada	Foreign	Totals	Marginal Number
1	..	5	1	..	..	..	..	1	..	1	..	..	2	..	..	2	..	..	..	..	1	..	..	2	..	..	..	..	..	..	..	98	1
2	2	2	6	2	..	..	..	4	1	16	..	..	2	6	..	1	..	1	..	8	6	1	..	1	..	..	3	..	..	..	2	292	2
3	4	..	2	3	5	2	..	2	..	23	..	2	10	..	6	3	1	..	..	2	6	..	..	4	1	2	..	2	5	17	253	3
4	8	1	2	2	4	..	..	2	..	17	1	3	5	7	8	5	..	1	1	3	6	1	..	3	20	2	6	..	7	20	31	309	4
5	8	..	5	3	7	1	..	2	..	6	..	1	3	2	3	9	1	..	1	..	5	7	..	..	7	..	5	3	..	4	7	298	5
6	5	2	..	3	1	1	..	2	2	8	..	2	2	3	5	4	..	..	..	..	1	13	..	..	20	..	1	1	2	3	8	242	6
7	3	..	7	7	5	..	..	1	2	3	6	..	3	..	2	2	..	..	2	1	4	6	..	..	1	..	1	6	..	1	3	217	7
8	2	..	4	2	..	..	2	15	..	32	..	1	2	..	19	9	..	..	..	..	3	..	..	1	1	22	..	..	2	..	13	206	8
9	2	..	..	1	..	..	6	31	..	90	2	1	7	..	2	39	18	1	1	..	..	1	1	..	2	2	1	1	8	..	8	299	9
10	..	2	2	..	1	..	3	20	..	13	6	..	9	1	..	13	..	1	3	1	3	9	2	12	9	6	6	3	6	..	4	285	10
11	..	..	2	..	1	..	..	8	..	29	9	..	4	1	..	18	1	..	..	..	4	..	..	25	..	4	..	..	5	..	4	186	11
12	..	9	1	..	1	..	..	1	..	4	7	..	2	..	..	3	..	13	..	7	..	1	..	2	..	2	..	..	..	..	1	218	12
13	..	..	..	..	..	..	..	1	..	1	..	..	1	1	..	..	..	9	..	2	..	..	..	1	..	1	1	..	..	..	..	212	13
14	4	..	1	2	3	1	..	8	..	16	..	1	20	..	..	14	..	..	1	..	..	..	..	..	3	1	3	..	2	2	7	275	14
15	14	1	16	15	10	2	..	4	6	5	1	9	30	3	3	4	..	1	14	1	3	16	..	1	34	4	22	7	5	4	11	557	15
16	3	1	7	4	2	..	..	..	1	4	1	5	1	1	1	3	..	..	..	8	..	6	..	..	3	5	10	..	1	..	5	109	16
17	7	3	2	6	5	..	1	5	2	12	3	3	10	5	2	8	1	..	4	..	3	5	..	2	9	1	8	2	2	5	11	260	17
18	5	1	9	2	1	..	..	4	1	14	2	1	3	2	..	8	1	..	3	1	1	..	..	..	1	..	9	2	..	7	27	638	18
19	2	1	4	2	..	..	..	2	..	12	..	4	6	1	1	5	..	1	1	2	1	..	..	..	2	1	7	1	..	1	6	507	19
20	4	..	4	1	7	1	..	1	..	..	..	..	1	..	..	..	..	..	3	..	2	..	..	..	1	..	2	2	2	2	5	282	20
21	3	..	46	1	5	..	..	..	..	2	..	..	2	7	..	2	..	..	2	..	3	..	..	..	1	..	2	..	2	2	1	335	21
22	1	3	8	..	..	..	..	3	1	19	2	..	31	1	2	7	1	1	5	3	2	17	..	1	9	10	5	..	4	5	5	360	22
23	1	18	4	1	1	..	..	3	..	15	1	..	2	2	..	5	..	2	..	6	14	4	..	..	..	1	2	..	5	..	10	345	23
24	..	62	4	..	..	..	..	10	4	28	3	..	11	15	..	8	1	..	6	..	4	53	1	..	3	..	..	1	12	..	9	496	24
25	4	1	4	2	1	..	1	11	..	28	10	..	9	1	1	21	1	6	1	3	8	2	..	6	1	6	2	..	2	2	19	590	25
26	1	1	1	1	..	..	1	14	1	23	21	..	8	..	1	33	1	6	..	1	..	4	..	5	..	35	..	..	21	..	5	373	26
27	..	..	1	..	..	..	7	3	..	25	..	..	..	..	1	5	5	..	..	..	..	..	1	2	2	..	..	..	6	1	4	217	27
28	12	3	20	3	4	1	5	15	1	65	11	3	28	1	4	23	13	1	1	9	7	4	2	2	11	4	8	..	7	4	23	533	28
29	..	..	..	..	..	..	18	2	..	4	..	..	1	..	2	23	..	..	..	..	..	..	4	..	..	..	..	..	..	..	..	402	29
30	7	2	3	6	4	..	..	5	1	19	3	2	34	..	3	13	..	3	3	1	4	1	..	3	3	4	4	1	14	2	17	456	30
31	2	..	4	..	..	..	..	2	..	12	..	2	11	..	..	8	..	..	..	4	..	1	..	..	..	..	2	..	..	15	12	253	31
32	349	1	4	12	5	..	..	3	1	6	..	19	..	..	1	..	..	..	7	..	1	1	..	..	7	..	17	..	1	5	5	477	32
33	..	48	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	55	33
34	..	..	59	..	..	..	..	..	..	..	1	1	..	1	..	1	..	..	1	..	..	..	..	..	..	..	..	..	1	..	..	71	34
35	8	1	60	7	4	2	2	13	4	54	..	5	52	4	2	24	4	1	2	2	7	3	..	1	19	1	4	..	11	1	7	443	35
36	6	2	96	4	5	1	..	5	1	16	8	..	7	4	6	3	..	..	2	1	6	12	1	3	14	3	3	2	3	1	16	359	36
37	6	..	6	5	34	..	..	3	..	19	..	1	2	..	9	..	..	..	13	..	2	1	..	..	13	..	3	4	2	1	..	224	37
38	5	..	7	3	237	1	..	..	..	..	..	2	2	1	..	1	..	..	6	..	1	1	..	..	1	..	..	4	..	1	2	321	38
39	4	..	..	..	..	..	6	2	..	9	..	..	1	..	..	2	..	..	..	..	..	..	1	1	..	..	1	..	..	1	2	46	39
40	..	..	2	..	..	..	3	15	..	104	..	..	1	..	1	3	..	1	..	..	..	..	3	..	..	..	..	..	..	1	1	150	40
41	..	..	1	..	..	..	2	40	..	275	..	..	1	..	..	8	..	..	1	2	2	..	..	..	1	1	..	1	..	1	14	385	41
42	1	..	1	..	..	..	..	1	..	212	..	..	15	..	..	19	..	..	..	..	1	..	..	..	1	..	..	..	2	4	8	275	42
43	3	..	4	..	3	3	3	33	2	186	3	2	10	1	..	22	5	1	..	4	6	4	2	4	3	2	3	1	2	4	9	428	43
44	..	..	2	1	..	..	..	43	..	151	7	..	6	..	2	15	4	..	..	3	3	3	..	1	2	1	2	..	1	..	2	311	44
45	..	..	..	1	1	..	..	56	..	227	..	1	4	..	..	5	1	..	1	1	..	..	..	..	1	1	1	..	1	1	1	328	45
46	2	..	6	..	1	1	5	59	..	316	4	..	3	..	..	25	1	..	..	..	1	1	..	..	..	1	1	..	2	3	31	506	46
47	2	..	1	2	1	1	2	11	..	100	1	..	24	..	1	8	..	1	..	..	1	2	2	2	..	..	1	..	2	9	2	225	47
48	2	..	..	..	..	..	..	4	1	128	..	..	2	..	..	18	..	..	..	..	1	..	2	..	..	..	1	2	3	2	1	171	48
49	..	..	..	..	..	..	..	1	..	2	70	..	..	..	..	..	..	..	7	..	..	..	..	1	..	..	..	..	..	..	..	86	49
50	..	1	2	1	..	..	..	22	..	14	64	..	12	4	..	12	..	20	..	3	1	2	..	17	2	11	..	..	1	..	3	262	50
51	1	1	..	..	..	..	..	2	..	2	58	..	..	..	..	..	..	1	..	1	..	..	..	3	..	..	..	..	..	..	..	73	51
52	12	..	..	1	..	..	..	..	..	1	..	32	..	..	1	..	..	..	3	..	..	..	..	..	1	..	..	..	2	..	..	53	52
53	1	..	3	..	..	1	..	4	1	15	1	..	188	..	..	7	..	..	..	..	..	..	..	..	..	3	4	..	2	2	4	307	53
54	4	..	..	1	..	..	..	4	..	8	..	..	190	..	2	22	..	..	2	..	..	1	..	..	4	5	..	1	1	1	5	293	54
55	2	..	..	1	..	..	..	2	..	7	..	..	258	..	..	8	..	..	..	..	..	..	..	1	1	12	..	..	..	..	1	304	55
56	2	3	10	1	4	..	..	..	..	5	..	..	153	..	..	5	..	..	..	..	12	..	..	..	..	..	1	6	1	2	..	235	56
57	8	..	2	15	3	..	..	1	1	..	3	1	3	102	1	..	..	4	1	..	4	..	..	..	47	1	2	..	1	6	3	260	57
58	1	..	2	..	..	..	3	69	..	45	1	..	20	1	2	283	4	..	..	1	3	1	1	1	5	..	..	18	1	11	541	58
59	1	1	..	1	..	1	1	59	..	6	26	..	21	..	..	330	2	5	..	2	..	1	..	..	3	10	..	..	9	..	..	530	59
60	..	2	1	2	2	2	3	36	..	26	16	10	10	2	..	218	..	2	2	..	5	17	1	2	6	10	2	..	8	1	11	447	60
61	4	2	6	..	3	..	..	37	..	31	18	3	10	2	..	246	1	5	1	3	6	7	..	2	6	16	2	2	5	..	11	496	61
62	..	..	2	..	2	..	..	8	..	29	2	..	5	1	..	26	1	..	..	..	1	1	..	..	..	..	1	..	7	..	8	114	62
63	..	..	..	..	..	..	..	..	..	3	..	..	4	..	..	294	..	..	1	..	..	..	..	..	1	4	..	..	..	1	1	315	63
64	..	..	1	..	..	..	..	..	..	..	2	..	..	..	..	..	..	168	..	..	1	..	..	..	3	..	1	..	..	2	3	183	64
65	2	..	..	1	..	..	..	..	..	1	..	..	..	..	..	..	25	..	..	..	..	..	..	..	..	..	..	..	..	..	..	40	65
66	2	60	20	..	2	..	..	1	..	5	5	2	12	3	1	1	2	195	27	6	..	3	10	1	..	1	2	2	3	470	66
67	..	13	2	..	..	..	..	3	..	5	17	..	6	1	..	10	..	13	..	15	18	..	..	12	1	3	..	..	4	..	15	231	67
68	1	13	5	1	..	..	..	2	..	5	7	..	1	2	..	3	1	10	1	62	9	..	..	4	1	3	2	1	..	..	2	202	68
69	..	7	6	..	1	..	..	3	5	1	1	..	2	19	1	3	..	2	..	4	227	..	..	..	..	2	1	1	..	1	2	321	69
70	1	5	..	..	1	..	..	1	1	5	2	..	13	1	..	1	1	2	..	3	306	..	..	1	2	1	..	..	1	..	5	384	70
71	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	63	..	..	..	..	..	..	..	..	..	66	71
72	..	..	..	1	1	..	6	1	..	7	..	1	3	..	..	1	..	..	1	1	..	..	84	..	..	..	..	..	..	2	2	127	72
73	..	..	..	..	..	..	..	8	..	11	10	..	2	1	..	3	..	1	..	5	2	..	1	160	1	9	..	..	2	..	2	249	73
74	2	1	3	1	..	..	..	5	..	21	30	..	8	1	1	9	..	1	1	4	1	..	1	133	..	41	1	..	5	..	5	302	74
75	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	46	..	..	..	..	1	51	75
76	6	..	1	1	2	..	..	1	..	1	1	1	2	..	1	2	..	..	2	1	..	1	..	..	1	183	..	..	2	10	257	76
77	25	..	4	4	..	1	1	1	1	40	..	4	7	..	1	16	..	..	..	..	1	2	..	2	8	3	119	1	15	1	14	332	77
78	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	183	8	194	78
79	..	..	..	..	2	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1	204	13	223	79
80	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	136	26	164	80
81	1	..	..	1	..	..	..	..	..	8	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	237	16	266	81
82	..	..	..	..	..	..	..	1	..	3	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	204	11	224	82
83	2	..	..	..	..	..	1	..	1	7	..	..	3	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	718	65	804	83
84	..	..	..	1	1	..	10	2	..	31	3	2	1	..	1	5	3	..	..	..	2	1	6	1	6	1	1	..	..	231	40	397	84
85	..	..	..	..	..	..	5	..	..	1	..	..	..	..	..	..	3	..	..	..	..	..	..	..	..	..	..	..	..	..	196	3	209	85
86	..	..	..	..	..	..	6	1	..	12	..	..	..	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	287	3	324	86
87	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	46	2	48	87
	571	277	489	137	380	25	103	745	43	2711	441	131	1127	275	184	1934	107	297	131	371	790	243	116	425	803	293	469	49	233	2577	699	24884	

(Continued from page 1273)

Students born in New York were enrolled in all but eight schools and in every state with the exception of Iowa, Mississippi, Missouri, Nebraska, South Carolina, South Dakota, Utah and West Virginia. Students from New York were registered in three of the provinces of Canada having medical schools. None were studying in Alberta, Nova Scotia or Saskatchewan.

From the twelve states in which no medical schools are located there were 1,890 students studying in at least sixty-eight schools. There were 745 students born in New Jersey admitted to sixty-eight schools, while 303 from the state of Washington enrolled in fifty schools. Figures covering the number of students who listed as their birth state one which has no medical school, together with the number of medical schools in which they enrolled, are reported as follows:

	Enrolled	No. of Schools
Arizona	54	27
Delaware	45	22
Florida	174	38
Idaho	103	30
Maine	105	35
Montana	137	44
Nevada	25	18
New Jersey	745	68
New Mexico	43	23
Rhode Island	107	26
Washington	303	50
Wyoming	49	23
	1,890	

Students of foreign birth were enrolled in sixty-five of the seventy-seven medical schools of the United States and in every Canadian school. There were 699 such students so enrolled, 512 in the United States and 187 in Canada. Thirty-one were so registered at the College of Medical Evangelists and a like number at New York University College of Medicine, 27 at the University of Illinois and 23 at Harvard Medical School. Other schools registered fewer than 20. It may be presumed that many of these students are now citizens of the United States.

The medical school enrolment is further classified by birth place in table 13. This compilation reveals that 13,904 students are studying in the state or province of their birth and 10,980 elsewhere. It will be noted that, in Illinois, of the 1,848 students enrolled in five schools 969 were born outside the state. While more than 1,000 born outside the respective states were enrolled in institutions in New York and Pennsylvania, the number of those born within and studying in these states was greater. Schools located in California, Connecticut, the District of Columbia, Kentucky, Louisiana, Maryland, Massachusetts, Missouri, New Hampshire, North Carolina, Oregon and Tennessee enrolled more students from outside the state than from within.

In the United States 11,462 students were attending school in the state of their birth, and 10,569, 48 per cent, were studying elsewhere. Eliminating the 1,890 students from states which have no medical school, there are still 8,679 students who, though born in a state which had a medical school, are studying elsewhere.

While a perusal of table 13 will show many instances wherein the number studying elsewhere far exceeds the number attending school in the state of birth, it also shows many states in which the contrary is the case, namely Alabama, Arkansas, Colorado, Georgia, Indiana, Iowa, Kansas, Michigan, Minnesota, Mississippi, New York, North Dakota, Ohio, Oklahoma, Pennsylvania, South Carolina, South Dakota, Texas, Utah, Vermont, Virginia, West Virginia and Wisconsin.

In Canada 411 of the 2,853 students were born outside the dominion.

The tables which next follow tabulate the student enrolment according to their status as residents or nonresidents and show slightly different data.

RESIDENT AND NONRESIDENT STUDENTS

Table 14 gives for each medical school in the United States the number of resident and nonresident students according to the individual school's definition of the word "resident." There is a wide variation in the definition of this term among both state universities and other schools. In some universities this is determined by the legal or permanent residence of the student, parents or guardian only, while in some schools continuous residence for from six months to one, two or three years just prior to the student's application for enrolment is required. Other schools require the student to be a voter, that the parents' home in the state be established prior to the beginning of premedical work, that the student be a taxpayer or a dependent of a taxpayer regardless of whether he resides in the state, while other schools require the student to be self supporting. In a few schools each case is determined by an attorney after consideration of birth, citizenship, residence of parents, and so on. Most commonly residence is determined by ascertaining whether the student's parents or guardian has been a bona fide resident for a period of not less than six months. Among medical schools of other than state universities a resident is defined for the most part by the home address of the student or the legal residence of the parents or guardian.

TABLE 13.—*Students Classified by Birth Place*

	Schools	Attending School in State of Birth	Birth Place Elsewhere
Alabama	1	78	20
Arkansas	1	197	95
California	4	390	622
Colorado	1	129	88
Connecticut	1	42	164
District of Columbia	3	134	636
Georgia	2	302	128
Illinois	5	879	969
Indiana	1	406	101
Iowa	1	226	56
Kansas	1	227	108
Kentucky	1	140	220
Louisiana	2	350	491
Maryland	2	191	472
Massachusetts	3	515	617
Michigan	2	390	319
Minnesota	1	349	128
Mississippi	1	48	7
Missouri	3	215	678
Nebraska	2	271	274
New Hampshire	1	6	40
New York	9	1,099	1,083
North Carolina	3	192	229
North Dakota	1	32	21
Ohio	3	616	288
Oklahoma	1	153	82
Oregon	1	102	158
Pennsylvania	6	1,397	1,046
South Carolina	1	168	15
South Dakota	1	25	15
Tennessee	3	272	631
Texas	2	533	172
Utah	1	63	3
Vermont	1	84	43
Virginia	2	293	258
West Virginia	1	46	5
Wisconsin	2	392	287
Canada	10	2,442	411
Totals	87	13,904	10,980

Seventy-three schools, including seven schools of the basic medical sciences, reported 13,676 resident and 8,355 nonresident students. The state university enrolling the greatest number of nonresidents was the University of Tennessee College of Medicine, which had 236 resident and 234 nonresident students, while at the Universities of Georgia, Mississippi, Missouri and West Virginia nonresidents were not registered.

TABLE 14.—*Resident and Nonresident Students*

	Resident Students	Non-Resident Students	Totals
University of Alabama	90	8	98
University of Arkansas	243	49	292
University of California	244	9	253
College of Medical Evangelists	57	252	309
University of Southern California	190	18	208
Stanford University	195	47	242
University of Colorado	195	22	217
Yale University	54	152	206
Georgetown University	23	276	299
George Washington University	95	190	285
Howard University	20	166	186
Emory University	134	84	218
University of Georgia	212	...	212
Loyola University	128	147	275
Northwestern University	196	361	557
Rush Medical College	20	89	109
University of Chicago, The School of Medicine	73	196	269
University of Illinois	627	11	638
Indiana University	494	13	507
State University of Iowa	274	8	282
University of Kansas	319	16	335
University of Louisville	162	198	360
Louisiana State University	268	77	345
Tulane University of Louisiana	148	348	496
Johns Hopkins University	56	234	290
University of Maryland	176	197	373
Boston University	140	77	217
Harvard Medical School	110	423	533
Tufts College	298	104	402
University of Michigan	310	146	456
Wayne University	230	23	253
University of Minnesota	441	36	477
University of Mississippi	55	...	55
University of Missouri	71	...	71
St. Louis University	68	375	443
Washington University	112	247	359
Creighton University	34	190	224
University of Nebraska	309	12	321
Dartmouth Medical School	8	38	46
Albany Medical College	104	46	150
Long Island College of Medicine	301	84	385
University of Buffalo	243	32	275
Columbia University	193	235	428
Cornell University	151	160	311
New York Medical College	227	101	328
New York University	368	138	506
University of Rochester	126	102	228
Syracuse University	128	43	171
University of North Carolina	70	16	86
Duke University	64	198	262
Bowman Gray School of Medicine	58	15	73
University of North Dakota	48	5	53
University of Cincinnati	219	88	307
Western Reserve University	212	81	293
Ohio State University	303	1	304
University of Oklahoma	227	8	235
University of Oregon	177	83	260
Hahnemann Medical College	302	239	541
Jefferson Medical College	330	200	530
Temple University	218	229	447
University of Pennsylvania	263	233	496
Woman's Medical College	31	83	114
University of Pittsburgh	311	4	315
Medical College of South Carolina	168	15	183
University of South Dakota	37	3	40
University of Tennessee	236	234	470
Meharry Medical College	15	216	231
Vanderbilt University	72	130	202
Baylor University	286	35	321
University of Texas	380	4	384
University of Utah	63	3	66
University of Vermont	105	22	127
University of Virginia	160	89	249
Medical College of Virginia	160	142	302
West Virginia University	51	...	51
University of Wisconsin	242	15	257
Marquette University	148	184	332
Totals	13,676	8,355	22,031

Among other than state universities, it will be noted that there are many schools which select most of their students from among the residents of the state. This is particularly significant at the Universities of Southern California, Stanford, Emory, Tufts, Boston, Albany, Long Island, New York Medical, New York University, Syracuse, Western Reserve, Jefferson and Baylor. The enrolment in the three municipally controlled medical schools included 9.1, 28.7 and 55 per cent nonresident students. The state supported medical schools as a group had enrolled 15.6 per cent nonresident students as compared with 51.9 per cent in other medical schools. Municipal universities as a group enrolled 33.6 per cent nonresident students, and state and municipal institutions as a group enrolled 17.4 per cent.

Figures indicating enrolment of resident and nonresident students for six years, beginning with the academic year 1936-1937, are shown in table 15. The figures do not vary to any measurable extent.

The ten faculties of medicine of Canada, including one offering courses in the basic medical sciences, reported 2,036 residents and 817 nonresident students. The definition of a resident in these schools varied from students whose permanent address is within one of the provinces of Canada, or the specific province in which the school is located, to home address on registration and taxpayers. The greatest number of nonresidents in any one of the Canadian schools was reported by McGill University Faculty of Medicine, 251. This school has always obtained a large portion of its student body from the United States.

TABLE 15.—*Resident and Nonresident Students, 1936-1941*

	Resident	Nonresident	Totals
1936-1937	14,026	8,069	22,095
1937-1938	13,518	8,069	21,587
1938-1939	13,418	7,884	21,302
1939-1940	13,292	7,979	21,271
1940-1941	13,278	8,101	21,379
1941-1942	13,676	8,355	22,031

The figures in tables 14 and 15 giving the number of residents and nonresidents and the preceding two tables classifying students by birth place show a divergence. Excluding Canadian registration given in tables 12 and 13, there were 11,462 attending school in the state of their birth and 10,569 elsewhere, as compared with 13,676 whose legal residence is in the state in which they are pursuing their medical courses, and 8,355 classified as nonresidents. The figures for Canada show 2,442 born in Canada and 411 elsewhere, while there were 2,036 reported as residents and 817 as nonresidents.

SCHOOLS, STUDENTS AND GRADUATES BY STATES

Medical schools and schools of the basic medical sciences are located in thirty-six states and the District of Columbia. The number of schools, students and graduates by states are shown in table 16. These figures include sixty-seven medical schools and ten schools of the basic medical sciences.

The greatest number of medical schools in any one state (nine) are located in New York. This state likewise had the greatest number of students (2,782) and graduates (634). Pennsylvania, with six schools, had 2,443 students and 598 graduates; Illinois, with five schools 1,848 students and 564 graduates, ranks third; while Massachusetts with three schools, 1,152 students and 275 graduates and California with four schools, 1,012 students and 294 graduates complete the group of states having an enrolment of more than 1,000. The foregoing five states, in which are located 35 per cent

of the medical schools in the United States, had 41.9 per cent of the students and 45.8 per cent of the graduates.

Seven of the aforementioned thirty-six states had no graduates, as the medical schools located therein do not offer the complete medical course. Twelve others had less than 100 graduates, the lowest being 31, who received their degrees from the one medical school in Vermont.

In the seventy-seven schools, including those that offer courses only in the basic medical sciences, there were 22,031 students and 5,163 graduates. Students interning as a requirement for the degree, fifth year students, are not included in this tabulation. There were 767 students serving internships as a prerequisite to obtaining the M.D. degree during 1941-1942. Likewise excluded from this tabulation are part time, special and graduate students pursuing courses in medical schools not leading to the M.D. degree.

The status of two medical schools has changed since the session 1941-1942. Undergraduate courses at Rush Medical College terminated in June 1942. For the session 1941-1942 only senior students were enrolled. On Aug. 4, 1939 the board of trustees of Wake Forest College accepted the resources of the Bowman Gray Foundation in Winston-Salem. The medical school of Wake Forest College was moved to Winston-Salem, N. C., in the summer of 1941 and is known as the Bowman Gray School of Medicine of Wake Forest College. The school, which has offered courses only in the basic medical sciences, is planning to offer the complete medical course, and instruction to juniors has been offered since July under the accelerated program. It is expected to offer senior instruction beginning in March 1943 and to have its first graduating class in December of that year.

TABLE 16.—*Schools, Students and Graduates by States* *

	Schools	Students	Graduates
Alabama	1	98	...
Arkansas	1	292	66
California	4	1,012	294
Colorado	1	217	51
Connecticut	1	206	51
District of Columbia	3	770	192
Georgia	2	430	91
Illinois	5	1,848	564
Indiana	1	507	108
Iowa	1	282	46
Kansas	1	335	81
Kentucky	1	360	88
Louisiana	2	841	206
Maryland	2	663	160
Massachusetts	3	1,152	275
Michigan	2	709	159
Minnesota	1	477	117
Mississippi	1	55	...
Missouri	3	873	187
Nebraska	2	545	121
New Hampshire	1	46	...
New York	9	2,782	634
North Carolina	3	421	64
North Dakota	1	53	...
Ohio	3	904	216
Oklahoma	1	235	55
Oregon	1	260	51
Pennsylvania	6	2,443	598
South Carolina	1	183	43
South Dakota	1	40	...
Tennessee	3	903	199
Texas	2	705	174
Utah	1	66	...
Vermont	1	127	31
Virginia	2	551	120
West Virginia	1	51	...
Wisconsin	2	589	115
Totals	77	22,031	5,163

* Excluding fifth or intern year students.

REQUIRED INTERNSHIPS

The medical schools and licensing boards requiring a hospital internship for the M.D. degree and state licensure, respectively, are shown in tables 17 and 18.

Nine schools in the United States and four in Canada require an internship for graduation. Several medical schools will accept research or other clinical work in lieu of hospital service. The University of Minnesota Medical School in 1915 was the first school to adopt the internship as a basis for the M.D. degree. Since 1940 the requirement has been dropped by six schools in the United States and one in Canada. The last school to withdraw the requirement was the University of California Medical School. This school in 1942 awarded degrees to 55 students who completed their course in 1941 and served internships during 1941-1942 and to 56 who completed four years of college work in 1942, a total of 111. In 1942 the University of Alberta Faculty of Medicine added the internship to its requirement for the degree, but this requirement has not been added in recent years by any medical school in the United States.

TABLE 17.—*Internship Required by Medical Schools*

College of Medical Evangelists
University of Southern California School of Medicine
Stanford University School of Medicine
Loyola University School of Medicine
Northwestern University Medical School
Wayne University College of Medicine
University of Minnesota Medical School
Duke University School of Medicine
Marquette University School of Medicine
University of Alberta Faculty of Medicine
University of Manitoba Faculty of Medicine
Dalhousie University Faculty of Medicine
University of Montreal Faculty of Medicine

Twenty-two states, the District of Columbia, Alaska, Hawaii and Puerto Rico require that all applicants for licensure shall have served a hospital internship. The first state exacting this requirement was Pennsylvania in 1914. In addition, other states require the internship of graduates of faculties of medicine abroad and of reciprocity or endorsement applicants.

TABLE 18.—*Internship Required by Medical Licensing Boards of All Candidates*

Alabama	Michigan	Rhode Island
Alaska	New Hampshire	South Dakota
Delaware	New Jersey	Utah
District of Columbia	North Dakota	Vermont
Hawaii	Oklahoma	Washington
Idaho	Oregon	West Virginia
Illinois	Pennsylvania	Wisconsin
Iowa	Puerto Rico	Wyoming

Some states require the internship of graduates of medical faculties abroad and reciprocity or endorsement applicants.

A few of the medical schools and licensing boards have their own list of hospitals acceptable for intern training, but the list of approved internships compiled by the Council on Medical Education and Hospitals is generally in use. A revised edition of the Council's list will be found beginning on page 1311.

There were 767 students in the United States and 145 in Canada, a total of 912, reported as completing the fifth or intern year requirement of the medical schools which exact the fulfilment of the internship as a requisite for the M.D. degree.

DISTRIBUTION BY SEX

Students and graduates in the United States and Canada classified according to sex are shown in table 19. Sixty-eight medical schools in the United States had both men and women students, of which fifty-seven had women graduates. Women were enrolled in seven of the ten schools in the United States offering only courses of the basic medical sciences. Nine faculties of medicine of Canada had both men and women students, and six had women graduates during the session just closed.

TABLE 19.—*Distribution by Sex*

	Students		Graduates	
	Men	Women	Men	Women
University of Alabama	93	5	..	..
University of Arkansas	285	7	65	1
University of California	223	30	100	11
College of Medical Evangelists	206	13	72	5
University of Southern California	205	3	49	..
Stanford University	227	15	55	2
University of Colorado	204	13	49	2
Yale University	190	16	49	2
Georgetown University	299	..	85	..
George Washington University	261	24	65	7
Howard University	173	13	31	4
Emory University	218	..	49	..
University of Georgia	203	9	41	1
Loyola University	262	13	63	4
Northwestern University	541	16	155	4
Rush Medical College	104	5	103	5
University of Chicago, The School of Medicine	257	12	59	6
University of Illinois	597	41	153	12
Indiana University	482	25	98	10
State University of Iowa	266	16	45	1
University of Kansas	319	16	80	1
University of Louisville	352	8	85	3
Louisiana State University	326	19	83	2
Tulane University of Louisiana	473	23	117	4
Johns Hopkins University	257	33	69	6
University of Maryland	357	16	81	4
Boston University	194	23	47	5
Harvard Medical School	533	..	129	..
Tufts College	383	19	86	8
University of Michigan	431	25	99	6
Wayne University	241	12	51	3
University of Minnesota	445	32	109	8
University of Mississippi	52	3	..	..
University of Missouri	70	1	..	..
St. Louis University	443	..	94	..
Washington University	337	22	88	5
Creighton University	215	9	49	3
University of Nebraska	311	10	65	4
Dartmouth Medical School	46	..	..	..
Albany Medical College	134	16	32	1
Long Island College of Medicine	360	25	84	6
University of Buffalo	259	16	54	7
Columbia University	399	29	90	5
Cornell University	294	17	72	3
New York Medical College	300	28	70	7
New York University	465	41	114	11
University of Rochester	214	14	40	4
Syracuse University	161	10	32	2
University of North Carolina	84	2	..	..
Duke University	254	8	62	2
Bowman Gray School of Medicine	69	4	..	..
University of North Dakota	53	..	..	..
University of Cincinnati	290	17	73	4
Western Reserve University	283	10	58	2
Ohio State University	290	14	75	4
University of Oklahoma	224	11	52	3
University of Oregon	253	7	49	2
Hahnemann Medical College	531	10	130	..
Jefferson Medical College	530	..	131	..
Temple University	409	38	105	12
University of Pennsylvania	473	23	124	5
Woman's Medical College	..	114	..	18
University of Pittsburgh	333	12	76	3
Medical College of South Carolina	179	4	43	..
University of South Dakota	40	..	..	..
University of Tennessee	456	14	93	5
Meharry Medical College	220	11	48	2
Vanderbilt University	195	8	50	1
Baylor University	305	16	71	4
University of Texas	361	23	91	8
University of Utah	61	5	..	..
University of Vermont	122	5	31	..
University of Virginia	241	8	61	1
Medical College of Virginia	278	24	57	7
West Virginia University	47	4	..	..
University of Wisconsin	237	20	40	5
Marquette University	322	10	64	6
University of Alberta	180	14	43	4
University of Manitoba	203	20	51	3
Dalhousie University	160	4	42	..
Queen's University	266	..	41	..
University of Western Ontario	204	20	34	2
University of Toronto	740	64	109	7
McGill University	373	24	81	9
University of Montreal	201	8	48	..
Laval University	315	9	64	1
University of Saskatchewan	42	6	..	..
Totals	23,551	1,333	5,397	305

Male students in the United States numbered 20,867 and included 4,884 graduates; female students numbered 1,164 and graduates 279. There were enrolled in Canadian schools 2,684 men and 169 women. Of these 513 were men graduates and 26 women.

There were 2,162 students enrolled in medical schools in the United States which are not coeducational, and of this number 488 graduated during the last session.

TABLE 20.—*Distribution by Sex in the United States and Canada, 1936-1941*

	Students		Graduates	
Year	Male	Female	Male	Female
1935-1936	24,219	1,254	5,388	268
1936-1937	23,787	1,244	5,624	261
1937-1938	23,234	1,307	5,439	252
1938-1939	22,919	1,293	5,290	285
1939-1940	22,903	1,291	5,430	273
1940-1941	22,853	1,308	5,327	310
1941-1942	23,551	1,333	5,397	305

In the one school in Canada which does not admit women there were 226 students and 41 graduates.

In the one medical school for women in the United States there were 114 students and 18 graduates during 1941-1942.

The greatest number of women enrolled in coeducational institutions in the United States was 41 studying at the University of Illinois College of Medicine. In Canada, 64 were enrolled in the University of Toronto Faculty of Medicine.

Figures are given in table 20 showing this distribution for a seven year period. For the session 1941-1942 there has been a slight increase in the number of both men and women students.

WOMEN IN MEDICINE

Elizabeth Blackwell was the first woman to receive the degree of Doctor of Medicine in the United States. She studied in and graduated at the Geneva Medical College, now the Syracuse University College of Medicine, in 1849. The first medical school for women, the Woman's Medical College of Pennsylvania, was organized in 1850 with a class of 7 students. It is still functioning and is the only medical school in the United States which teaches women students exclusively. All but six of the seventy-seven medical schools in the

TABLE 21.—*Women in Medicine in the United States*

Year	Women Students	Percentage of All Students	Women Graduates	Percentage of All Graduates
1905	1,073	4.1	219	4.0
1910	907	4.0	116	2.6
1915	592	4.0	92	2.6
1920	818	5.8	122	4.0
1925	910	5.0	204	5.1
1926	935	5.0	212	5.4
1927	904	4.9	189	4.7
1928	939	4.5	207	4.9
1929	925	4.4	214	4.8
1930	955	4.4	204	4.5
1931	990	4.5	217	4.6
1932	955	4.3	208	4.2
1933	1,056	4.7	214	4.4
1934	1,020	4.5	211	4.2
1935	1,077	4.7	207	4.1
1936	1,133	5.0	246	4.7
1937	1,113	5.1	238	4.4
1938	1,161	5.4	237	4.6
1939	1,144	5.4	260	5.1
1940	1,145	5.4	253	5.0
1941	1,146	5.4	280	5.3
1942	1,164	5.3	279	5.4

United States admit women students. These six schools are Georgetown University School of Medicine, Emory University School of Medicine, Harvard Medical School, St. Louis University School of Medicine, Dartmouth Medical School and Jefferson Medical College. Two schools which have been coeducational since their organization had no women students in 1941-1942, namely the Universities of North and South Dakota. The Hahnemann Medical College of Pennsylvania accepted women students for the first time in 1941-1942 and admitted 10.

During the past year, as shown in table 21, there were 1,164 women studying medicine, constituting 5.3 per cent of the total student enrolment. The enrolment of women in 1941-1942 was an increase of 18 over the previous session. There were 279 women graduates, or 5.4 per cent of the total number of graduates. Eighteen were graduates of the Woman's Medical College of Pennsylvania, while 261 secured their degrees from coeducational schools. Of the women students, 114 were in attendance at the one medical school for women while 1,050 were students in sixty-eight other schools. In the eighteen years since 1925, 4,080 women have received degrees in medicine. It has recently been estimated that there are about 7,500 women physicians in the United States.

PART TIME, SPECIAL AND GRADUATE STUDENTS ENROLLED IN MEDICAL SCHOOLS

The various courses of the undergraduate medical curriculum are today so closely integrated that medical educators have recognized that it is only under unusual conditions that a student should be permitted to undertake the study of medicine on a part time basis.

Special and graduate students fall into a different category, and their acceptance as such depends on school policies and local conditions such as the relationships of the medical school to other departments of a university.

In addition to the regularly enrolled undergraduate medical students there were 1,035 part time, special and graduate students pursuing medical subjects during 1941-1942 in forty-four medical schools in the United States and four in Canada. This group comprised 132 part time, 416 special and 487 graduate students and is summarized in table 22.

Students on a part time basis (132) were enrolled in twenty schools in the United States. The largest group studying in any one school (34) were in the University of Texas Medical Branch. Fewer than 5 were enrolled in each of twelve schools.

The 416 special students matriculated in twenty-eight schools in the United States and two in Canada. The greatest number (168) were in attendance at the University of North Carolina School of Medicine. The majority of these students were undoubtedly enrolled in the School of Public Health of the University of North Carolina, which maintains close cooperation with the School of Medicine. Ninety-nine were enrolled in Northwestern University School of Medicine and 41 in the School of Medicine of the University of Chicago. Other schools registered fewer than 17.

There were also 487 students not candidates for the medical degree pursuing medical subjects in eighteen medical schools of the United States and three in Canada. This group has been reported as graduate students and is probably enrolled in the graduate school of the university. At Northwestern University Medical School there were 116 such students and at the University of North Carolina School of Medicine 57, while other schools matriculated fewer than 50.

The Universities of Kansas, Johns Hopkins, Michigan and North Carolina matriculated all three of these types of students.

SCHOOLS, STUDENTS AND GRADUATES, 1905-1942

The number of medical schools, students and graduates in the United States for five year intervals from 1905 to 1920 and for each year since is shown in table 23. This tabulation covers only candidates for the M.D. degree and does not include part time and special students, though their work may later be accepted as fulfilling part of the requirement for the M.D. degree, in which cases they are reported as regularly enrolled students and are thereafter included in these computations.

TABLE 22.—*Medical Schools Reporting Part Time, Special and Graduate Students, 1941-1942*

	Part Time	Special	Graduate
University of Alabama	16	..	..
University of Arkansas	1	4	..
University of Colorado	..	2	..
Howard University	1	8	..
University of Georgia	2	..	..
Rush Medical College	..	1	..
Loyola University	..	2	..
Northwestern University	..	99	116
University of Chicago	..	41	..
University of Kansas	5	2	2
University of Louisville	..	..	1
Tulane University	14	..	..
Louisiana State University	..	1	..
Johns Hopkins University	6	9	10
University of Maryland	..	1	..
Boston University	..	..	6
Tufts College	..	2	..
Wayne University	2	..	46
University of Michigan	12	4	2
University of Minnesota	..	..	17
University of Mississippi	4	..	..
Washington University	..	..	22
University of Missouri	1	5	..
St. Louis University	..	2	..
Creighton University	..	2	..
Albany Medical College	..	3	..
University of Buffalo	9	3	..
Columbia University	..	16	37
Cornell University	..	2	11
New York Medical College	..	..	16
New York University	4	3	..
University of North Carolina	4	168	57
University of Cincinnati	..	3	..
Western Reserve University	..	1	..
University of Oklahoma	..	4	7
University of Oregon	..	2	9
Woman's Medical College	2	..	11
University of Pittsburgh	8	..	..
University of South Dakota	3	..	..
Vanderbilt University	1	1	..
University of Tennessee	..	15	23
Meharry Medical College	..	..	11
University of Texas	34	..	..
Marquette University	3	..	..
Queen's University	..	..	2
University of Montreal	..	..	48
University of Toronto	..	7	33
University of Western Ontario	..	3	..
Totals	132	416	487

In 1905 in the one hundred and sixty medical schools existing there were 26,147 students. The total number of undergraduate medical students for the college session 1941-1942 in seventy-seven approved medical schools was 22,031. In the ten years from 1910 to 1920 there was a decrease in enrolment of more than 7,000, owing to the enforcement of educational standards and the closure of many proprietary schools, while from 1921 to 1935 there was a continuous increase in students among approved colleges. For four years the trend was slightly downward and then in 1940 there was again an increase. The decrease in student enrol-

ment in 1936 and thereafter was in part the result of the survey of medical schools conducted by the Council on Medical Education and Hospitals during 1934-1936 [2] and its recommendation to several medical schools that their enrolment be decreased in order to provide more adequate opportunities for the student body. However, the executive council of the Association of American Medical Colleges, at a meeting held May 30, 1941, recommended that those schools which could do so, without lowering standards of medical education, increase the enrolment of the 1941 entering class by 10 per cent in order to help meet the medical needs of the national emergency. Thus the number of students enrolled during 1941-1942 was 22,031, an increase of 652 over the previous year.

Again referring to table 23, it will be noted that the total number of graduates in 1942 was 5,163, a decrease of 112 over 1941. The discontinuance of the internship requirement by two schools in 1941 was responsible for the high figure of that year as compared with previous years. There were, however, fewer graduates in 1942 from sixty-seven medical schools granting the M.D. degree than from the one hundred and sixty schools

TABLE 23.—*Schools, Students and Graduates in the United States, 1905-1942*

	Schools	Students *	Graduates
1905	160	26,147	5,606
1910	131	21,526	4,440
1915	96	14,891	3,536
1920	85	13,798	3,047
1921	83	14,466	3,186
1922	81	15,635	2,520
1923	80	16,960	3,120
1924	79	17,728	3,562
1925	80	18,200	3,974
1926	79	18,840	3,962
1927	80	19,662	4,035
1928	80	20,545	4,262
1929	76	20,878	4,446
1930	76	21,597	4,565
1931	76	21,982	4,735
1932	76	22,135	4,936
1933	77	22,466	4,895
1934	77	22,709	5,035
1935	77	22,888	5,101
1936	77	22,564	5,183
1937	77	22,095	5,377
1938	77	21,587	5,194
1939	77	21,302	5,089
1940	77	21,271	5,097
1941	77	21,379	5,275
1942	77	22,031	5,163

* Includes figures for schools of the basic medical sciences.

existing in 1905. With a few exceptions there has been an increase in the number of medical graduates each year since 1925. The lowest number of M.D. degrees was granted in 1922. In that year there were 2,520 graduates because of the small size of the class that entered as freshmen in 1918 during the World War.

The number of medical schools in 1905 was one hundred and sixty; by 1910 the number dropped to one hundred and thirty-one, and since 1915 there have been fewer than one hundred. Since 1933 there have been in the United States sixty-six approved four year schools, one offering only clinical courses and ten schools of the basic medical sciences. The school offering only clinical courses terminated undergraduate study with the class of 1942, and one school which formerly offered courses in the basic medical sciences is developing a full four year course.

2. Weiskotten, H. G.; Schwitalla, A. M.; Cutter, W. D., and Anderson, H. H.: Medical Education in the United States, Chicago, American Medical Association, 1940.

In the seventy-seven medical schools in the United States, including the schools of the basic medical sciences, there were during the last session 22,031 students and 5,163 graduates.

GRADUATES WITH BACCALAUREATE DEGREES

While only six schools require a degree for admission, figures contained in table 24 indicate that 4,166 of the 5,702 graduates of medical schools of the United

TABLE 24.—*Graduates with Baccalaureate Degrees*

	Graduates	Degrees
University of Arkansas	66	25
University of California	111	110
College of Medical Evangelists	77	40
University of Southern California	49	35
Stanford University	57	57
University of Colorado	51	38
Yale University	51	45
Georgetown University	85	73
George Washington University	72	51
Howard University	35	30
Emory University	49	35
University of Georgia	42	24
Loyola University	67	19
Northwestern University	159	107
Rush Medical College	108	63
University of Chicago, The School of Medicine	65	64
University of Illinois	165	41
Indiana University	108	59
State University of Iowa	46	29
University of Kansas	81	22
University of Louisville	88	66
Louisiana State University	85	37
Tulane University of Louisiana	121	96
Johns Hopkins University	75	75
University of Maryland	85	77
Boston University	52	47
Harvard Medical School	129	117
Tufts College	94	94
University of Michigan	105	84
Wayne University	54	53
University of Minnesota	117	38
St. Louis University	94	61
Washington University	93	77
Creighton University	52	26
University of Nebraska	69	27
Albany Medical College	33	33
Long Island College of Medicine	90	74
University of Buffalo	61	40
Columbia University	95	92
Cornell University	75	75
New York Medical College	77	77
New York University	125	119
University of Rochester	44	41
Syracuse University	34	34
Duke University	64	48
University of Cincinnati	77	64
Western Reserve University	60	60
Ohio State University	79	77
University of Oklahoma	55	23
University of Oregon	51	51
Hahnemann Medical College	130	110
Jefferson Medical College	131	131
Temple University	117	109
University of Pennsylvania	129	126
Woman's Medical College	18	15
University of Pittsburgh	73	62
Medical College of South Carolina	43	42
University of Tennessee	98	58
Meharry Medical College	50	44
Vanderbilt University	51	49
Baylor University	75	47
University of Texas	99	83
University of Vermont	31	28
University of Virginia	62	39
Medical College of Virginia	64	47
University of Wisconsin	45	34
Marquette University	70	33
University of Alberta	47	..
University of Manitoba	54	18
Dalhousie University	42	23
Queen's University	41	7
University of Western Ontario	36	5
University of Toronto	116	24
McGill University	90	70
University of Montreal	48	47
Laval University	63	63
Totals	5,702	4,166

States and Canada held baccalaureate degrees. This is exclusive of those holding the degree B.S. in medicine. The latter group is separately dealt with in the next section. In the United States alone, 3,907 of the 5,163 medical graduates were in possession of baccalaureate

degrees. All the graduates of Stanford, Johns Hopkins, Tufts, Albany, Cornell, New York Medical, Syracuse, Western Reserve, University of Oregon, Jefferson and Laval University—eleven schools—held baccalaureate degrees. Four of these schools require the degree for admission, while two others will enroll students with three years of college training if the baccalaureate degree is conferred at the end of the first year in medicine, and five have a stated three year requirement. Three schools having a degree requirement or three years and a degree at the end of the first year of medicine graduated altogether 15 students with less than the stated college education.

None of the graduates of the University of Alberta held degrees in arts on graduation. The school in the United States having the fewest graduates with college degrees was the Woman's Medical College of Pennsylvania, 15, but this school had only 18 graduates. However, Loyola University School of Medicine, with a graduating class of 67, reported that only 19 of this class also held arts college degrees. At the University of Toronto Faculty of Medicine, 24 of a class of 116 held such degrees.

A percentage of 73 of all graduates in the United States and Canada in 1942 held baccalaureate degrees.

GRADUATES WITH B.S. IN MEDICINE DEGREE

Certain graduates of thirty medical schools in the United States and one in Canada, in 1942, received the Bachelor of Science degree in Medicine. There were 483 awarded in the United States and 27 in Canada, a total of 510. The largest single group to receive the degree were 88 graduates of the University of Minnesota; the University of Illinois granted 78, the University of Oklahoma 42, Rush Medical College 40, Indiana University 37, Northwestern University 29, the University of Alberta 27 and Creighton University 23. Other schools issued fewer than 20.

Schools in general are discontinuing the practice of issuing such degrees, while others have never done so.

STUDENTS BY CLASSES, 1930-1941

The number of students enrolled in preclinical and clinical classes in the medical schools of the United States for each session from 1930 to 1940 is presented in table 25. For the session 1941-1942 the attendance

TABLE 25.—*Students in the United States by Years, Including the Intern Year When Required for Graduation, 1930-1941*

	Preclinical		Clinical		Intern Year	Total
1930-1931	6,456	5,538	5,080	4,908	1,025	23,007
1931-1932	6,260	5,462	4,932	4,885	1,067	23,202
1932-1933	6,426	5,479	5,017	4,948	1,106	23,572
1933-1934	6,457	5,571	4,988	4,937	1,183	23,982
1934-1935	6,356	5,624	5,142	4,905	1,233	24,121
1935-1936	6,005	5,458	5,230	5,020	1,213	23,777
1936-1937	5,910	5,269	5,140	5,158	1,255	23,350
1937-1938	5,791	5,225	4,986	5,636	1,132	22,719
1938-1939	5,754	5,169	4,947	4,921	1,152	22,454
1939-1940	5,794	5,177	4,921	4,894	1,132	22,423
1940-1941	5,837	5,254	4,969	4,849	1,058	22,437
1941-1942	6,218*	5,406*	5,087*	4,942*	767	22,798

* Excluding enrolment figures for Rush Medical College 109 and The School of Medicine of the University of Chicago 269, a total of 378.

for the first preclinical year was 6,218. In the second preclinical year 5,406 were registered. In the clinical years 5,087 and 4,942 respectively were enrolled. The University of Chicago School of Medicine and Rush Medical College do not report their students by classes, and therefore the figures for enrolment at these schools are included only in the total column. During the session just closed there were 269 students enrolled in the University of Chicago School of Medicine and 109 at Rush Medical College, a total of 378 students.

By comparison with the previous session, it will be noted that the freshman class was increased by 381, the sophomore enrolment 152, the junior class 118 and the senior class 93. The number interning as a requirement for the degree decreased 291, owing to the discontinuance of this requirement by several schools in recent years. There was an increase in the total enrolment of 361. This is the largest student body since the session 1937-1938.

FEES

The eighty-seven medical schools of the United States and Canada, including those offering courses in the basic medical sciences, have been arranged in six groups in

TABLE 26.—*Fees, 1941-1942*

	Schools
Under $99	2
$100 to 199	7
200 to 299	21
300 to 399	14
400 to 499	17
500 or over	26
Total	87

Based on fees charged resident students.

table 26 according to the tuition fees charged resident students for the session 1941-1942. The data are based on the average tuition fee charged for the complete medical course and include minor charges such as for matriculation, breakage, diploma and graduation.

Two medical schools, the Universities of Oklahoma and Texas, charged fees under $99 a year. Twenty-six schools, eighteen of which are located in the eastern section of the country, had fees of $500 or more, namely College of Medical Evangelists, Yale, George Washington, Georgetown, Loyola, Rush, Tulane, Johns Hopkins, University of Maryland, Tufts, St. Louis, Washington, Albany, Columbia, Cornell, Long Island, New York Medical, New York University, Syracuse, Buffalo, Rochester, Cincinnati, Western Reserve, Hahnemann, University of Pennsylvania and Pittsburgh.

Medical school fees have been increased, as can be noted by a comparison with earlier figures. In 1941 there were three schools in the first group, eight in the second, twenty in the third, fifteen in the fourth, nineteen in the fifth and twenty-two in the last group.

Thirty-two schools in the United States and five in Canada made an additional charge for nonresidents, ranging from $50 each year by the Universities of Nebraska, Cincinnati and Virginia to $400 exacted by Louisiana State University School of Medicine. One school in Canada has a nonresident fee of $5 for the first and $10 for the second, third and fourth years. Thirteen schools have a nonresident fee of $100 or less, fourteen have fees between $101 and $200, seven from $201 to $300, and two from $301 to $400, while one school has a reciprocal fee for nonresidents.

The average resident fee charged by medical schools in the United States for the session 1941-1942 was $395, whereas in 1941 it was $386 and in 1940, $378.

DESCRIPTION OF MEDICAL SCHOOLS

ARKANSAS

Little Rock

UNIVERSITY OF ARKANSAS SCHOOL OF MEDICINE, 1209 McAlmont Street.—Organized in 1879 as the Medical Department of Arkansas Industrial University. Present title in 1899. In 1911 the College of Physicians and Surgeons united with it and it became an integral part of the University of Arkansas. The first class was graduated in 1880. Clinical teaching was suspended in 1918 but resumed in 1923. Coeducational since organization. The faculty consists of 26 professors and 113 lecturers and instructors, a total of 139. The curriculum covers four years of nine months each in medicine. Entrance requirements are two years of collegiate work. The B.S. Degree is conferred at the end of the second year. The fees for the four years for residents of Arkansas are $280 per year; nonresidents are charged $225 additional each year. The registration for 1941-1942 was 292; graduates, 66. The next session begins September 30, 1942, and ends June 15, 1943. The Dean is Byron L. Robinson, M.D.

CALIFORNIA

Berkeley-San Francisco

UNIVERSITY OF CALIFORNIA MEDICAL SCHOOL, University Campus, Berkeley; Medical Center, San Francisco.—Organized in 1864 as the Toland Medical College. The first class graduated in 1864. In 1873 it became the Medical Department of the University of California. In 1909, by legislative enactment, the College of Medicine of the University of Southern California, at Los Angeles, became a clinical department but was changed to a graduate school in 1914. In 1915 the Hahnemann Medical College of the Pacific was merged, and elective chairs in homeopathic materia medica, and therapeutics were provided. Coeducational since organization. Three years of collegiate work are required for admission. The work of the first year is given at Berkeley and that of the last three years at San Francisco. An accelerated program has been adopted consisting of three terms of sixteen weeks in each academic year. The medical course may now be completed in two and two-third years. The faculty is composed of 168 professors and 311 associates and assistants, a total of 479. The fees average $305 per academic year; nonresidents are charged $300 additional each year. The registration for 1941-1942 was 253; graduates, 111. The present session began June 15, 1942, and will end February 6, 1943. The subsequent session begins February 15, 1943. The Dean is Francis S. Smyth, M.D., San Francisco.

Loma Linda-Los Angeles

COLLEGE OF MEDICAL EVANGELISTS, Loma Linda; Boyle and Michigan Avenues, Los Angeles.—Organized in 1909. The first class graduated in 1914. The laboratory departments are at Loma Linda, the clinical departments at Los Angeles. Coeducational since organization. Three years of collegiate work are required for admission. The faculty is composed of 43 professors and 367 associates, assistants, and instructors, a total of 412. The course covers a period of four years of nine months each and an additional year consisting of an internship in an approved hospital. During the present military emergency vacations have been diminished to a minimum with a resulting accelerated course. The total fees are respectively, $612, $601, $612, and $612. The registration for 1941-1942 was 309; graduates, 77. The present session began July 5, 1942, and will end April 4, 1943. The subsequent session begins April 4, 1943. The President is Walter E. Magan, M.D., Los Angeles. The Dean is E. H. Risley, M.D., Loma Linda. The Assistant Dean is W. F. Norwood, Ph.D., Los Angeles.

Los Angeles

University of Southern California School of Medicine, 3551 University Avenue.—Organized in 1895 as the University of Southern California College of Medicine. First class graduated in 1888. In 1908 it became the Los Angeles Medical Department of the University of California. In 1909 the College of Physicians and Surgeons, established in 1904, became the Medical Department of the University of Southern California. Its activities were suspended in 1926; reorganized in May 1928, under present title. During present national emergency will operate the year round on accelerated three term basis, each term continuing for sixteen weeks. Matriculation of new classes will be mid-June of each year during emergency. The faculty consists of 165 professors and 236 instructors, assistants, and others, a total of 401. An internship is required for graduation. Three years of collegiate work are required for admission. Coeducational since organization. Annual fees amount to $452. The registration for 1941-1942 was 208; graduates, 49. The present session began June 15, 1942 and will end January 29, 1943. The Dean is Seeley G. Mudd, M.D.

Stanford University-San Francisco

STANFORD UNIVERSITY SCHOOL OF MEDICINE, University Campus, Stanford University; 2398 Sacramento Street, San Francisco. The main buildings are in San Francisco. The laboratories of anatomy, bacteriology and experimental pathology, chemistry, and physiology are located on the campus at Stanford University, which is thirty miles southeast of San Francisco adjoining the City of Palo Alto. The post office is Stanford University. Organized in 1908, when by agreement the interests of Cooper Medical College were taken over. The first class graduated in 1913. Coeducational since organization. The faculty consists of 136 professors and 183 lecturers, assistants and others, a total of 319. Three years of collegiate work are required for admission. The quarter plan is in operation admitting one class each year. An internship is a requirement for graduation. The fees for the four years, respectively, are $474, $438, $418 and $418. The registration for 1941-1942 was 242; graduates, 57. During 1942-1943 the quarters begin June 18, September 29, March 29, and June 17, and will end August 29, December 18, March 19, and June 9. The Dean is Loren Roscoe Chandler, M.D.

COLORADO

Denver

UNIVERSITY OF COLORADO SCHOOL OF MEDICINE, 4200 East Ninth Avenue.—Organized in 1883. Classes were graduated in 1885 and in all subsequent years except 1898 and 1899. Denver and Gross College of Medicine was merged, Jan. 1, 1911. Coeducational since organization. The faculty is composed of 57 professors and 130 lecturers, instructors and assistants, a total of 187. The accelerated program has been adopted involving the admittance and graduation of a class approximately every nine months. The entrance requirements are three years of collegiate work. The fees average $289 per academic year. Nonresidents are charged $245 additional each year. The registration for 1941-1942 was 217; graduates, 51. The present session began June 15, 1942, and will end March 19, 1943. The subsequent session will begin March 29, 1943. The Dean is Maurice H. Rees, M.D.

CONNECTICUT

New Haven

YALE UNIVERSITY SCHOOL OF MEDICINE, 333 Cedar Street.—Chartered in 1810 as the Medical Institution of Yale College. Organized in 1812; instruction began in 1813; first class graduated in 1814. A new charter in 1879 changed the name to the Medical Department of Yale College. In 1884, the Connecticut Medical Society surrendered such authority as had been granted by the first charter. In 1887, Yale College became Yale University. Coeducational since 1916. The faculty consists of 185 professors and 241 lecturers and assistants, a total of 426. The requirements for admission are three years of collegiate work. An accelerated program has been adopted involving the admittance and graduation of a class every nine months. The fees average $506 per academic year. The registration for 1941-1942 was 206; graduates, 51. The present session began June 29, 1942, and will end March 20, 1943. The subsequent session will begin April 5, 1943. The Dean is Francis G. Blake, M.D.

DISTRICT OF COLUMBIA

Washington

GEORGETOWN UNIVERSITY SCHOOL OF MEDICINE, 3900 Reservoir Road, N.W.—Organized in 1851. First class graduated in 1852. The faculty is composed of 62 professors, 46 associate professors, 11 assistant professors, 21 adjunct professors and 147 instructors, a total of 287. Three years of work in an acceptable college of arts and sciences is required for admission. An accelerated program has been adopted involving the admittance and graduation of a class every nine months. The fees average $500 per academic year. The registration for 1941-1942 was 299; graduates, 85. The present session began June 29, 1942 and will end March 6, 1943. The subsequent session begins March 15, 1943. The Dean is David V. McCauley, S. J., Ph.D.

GEORGE WASHINGTON UNIVERSITY SCHOOL OF MEDICINE, 1335 H Street, N.W.—Organized in 1825 as the Medical Department of Columbian College. Also authorized to use the name National Medical College. Classes were graduated in 1826 and in all subsequent years except in 1834 to 1838, and 1861 to 1863, inclusive. The original title was changed to Medical Department of Columbian University in 1873. In 1903 it absorbed the National University Medical Department. In 1904, by an Act of Congress, the title of George Washington University was granted to the institution. Coeducational since 1884. The faculty is composed of 81 professors and 150 instructors, demonstrators and assistants, a total of 231. Three years of collegiate work are required for admission. An accelerated program has been adopted involving the admittance and graduation of a class every nine months. The fees average $550 per academic year. The registration for 1941-1942 was 285; graduates, 72. The present session began June 8, 1942, and will end February 2, 1943. The subsequent session will begin March 1, 1943. The Dean is Walter A. Bloedorn, M.D.

HOWARD UNIVERSITY COLLEGE OF MEDICINE, Fifth and W Streets, N.W.—Chartered in 1867. Organized in 1869. The first class graduated in 1871. Coeducational since organization. Negro students compose a majority of those in attendance. The faculty comprises 41 professors and 61 instructors and assistants, a total of 102. The admission requirements are at least two years of collegiate work. The course covers four years of thirty-three weeks each. The fees are, respectively, $269, $269, $259 and $266. Registration for 1941-1942 was 186; graduates, 35. The next session begins Sept. 26, 1942, and ends June 4, 1943. The Dean is John Wesley Lawlah, M.D.

GEORGIA

Atlanta

EMORY UNIVERSITY SCHOOL OF MEDICINE, 50 Armstrong Street.—Organized in 1854 as the Atlanta Medical College. Classes graduated 1855 to 1861, when it suspended. Reorganized in 1865. A class graduated in 1865 and each subsequent year except 1874. In 1898 it merged with the Southern Medical College (organized in 1878), taking the name of Atlanta College of Physicians and Surgeons. In 1913 it merged with the Atlanta School of Medicine (organized in 1905), reassuming the name of Atlanta Medical College. Became the Medical Department of Emory University in 1915; assumed present title in 1917. Three years of collegiate work are required for admission. The course of study is four academic years of thirty-two weeks each. By the use of the long summer vacation as a teaching quarter, the time required for the completion of these four academic years has been reduced from four to three calendar years. This is in line with the accelerated program adopted by most medical schools during the present emergency. The fees for each of the four academic years are $357. The registration for 1940-1941 was 218; graduates, 45. Classes this year began on June 15, 1942 and will end March 18, 1943. The subsequent session will begin March 23, 1943. The Dean is Russell H. Oppenheimer, M.D.

Augusta

UNIVERSITY OF GEORGIA SCHOOL OF MEDICINE, University Place.—Organized in 1828 as the Medical Academy of Georgia, the name being changed to the Medical College of Georgia in 1829. After 1873 it was known as the Medical Department of the University of Georgia. On July 1, 1933, the name was changed to the University of Georgia School of Medicine. Property transferred to the University in 1911. Classes were graduated in 1833 and all subsequent years except 1862 and 1863. Coeducation was begun in 1920. The faculty includes 71 professors and 30 assistants, a total of 101. Three years of collegiate work are required for admission. An accelerated program has been adopted involving the admittance and graduation of a class approximately every nine months. The fees average $225 per academic year for residents of Georgia; nonresidents are not admitted. The registration for 1941-1942 was 212; graduates, 42. The present session began July 1, 1942, and will end March 22, 1943. The subsequent session will begin April 7, 1943. The Dean is G. Lombard Kelly, M.D.

ILLINOIS

Chicago

LOYOLA UNIVERSITY SCHOOL OF MEDICINE, 706 South Wolcott Avenue.—Organized in 1915 by acquisition of Bennett Medical College which had been organized in 1869. Facilities enlarged upon by acquisition of Chicago College of Medicine and Surgery, faculties in basic medical sciences put on full time basis and present title assumed in 1917. Operated as an organic part of Loyola University. Co-educational since organization. Ninety semester hours is the minimum requirement for admission. An accelerated program has been adopted involving the admittance and graduation of a class every nine months. An internship is a requirement for graduation. The faculty is composed of 38 full time professors and 260 associate and assistant professors, associates, instructors and assistants, a total of 298. The fees average $515 per academic year. The registration for 1941-1942 was 275; graduates, 67. The present session for all classes began on July 6, 1942 and will end April 10, 1943. The subsequent session will begin April 19, 1943. The Dean is Francis J. Braceland, M.D.

NORTHWESTERN UNIVERSITY MEDICAL SCHOOL, 303 East Chicago Avenue.—Organized in 1859 as the Medical Department of Lind University. First class graduated in 1860. In 1864 it became independent as the Chicago Medical College. It united with Northwestern University in 1869 but retained the name of Chicago Medical College until 1891, when the present title was taken. Became an integral part of Northwestern University in 1905. Coeducational since 1926. The faculty comprises 29 professors, 149 associate and assistant professors and 413 associates, instructors and clinical assistants, a total of 591. The requirement for admission is three years of collegiate work. The B.S. in medicine degree may be conferred before the end of the sophomore year. An accelerated program has been adopted involving the acceptance of a class every nine months. A hospital internship is required for graduation. The total fees are $414 each year. The registration for 1941-1942 was 557; graduates, 159. The present session began June 17, 1942 and will end March 24, 1943. The subsequent session will begin March 29, 1943. The Dean is J. Roscoe Miller, M.D.

UNIVERSITY OF CHICAGO, THE SCHOOL OF MEDICINE, Fifty-Eighth Street and Ellis Avenue.—Organized in 1924, as a part of the Ogden Graduate School of Science of the University of Chicago. In 1932, when the University of Chicago reorganized its departments, the medical departments were included in the Biological Sciences Division. The work of the first two years in the medical courses has been given on the University Quadrangles since 1899; but the last two years were offered only at Rush Medical College which was affiliated with the university until 1927 when actual work in the clinical departments on the campus began. After that time, candidates for the degree of Doctor of Medicine could take the work of the first two years on the campus and the work of the third and fourth years either on the campus or at the Rush Medical College. In June 1940 Rush Medical College became affiliated with the University of Illinois College of Medicine. All undergraduate instruction is now given only on the campus of the University of Chicago. The faculty of the School of Medicine is composed of 103 professors, 198 associates, instructors and others, a total of 301. The requirements for admission are three years of collegiate work. The B.S. degree may be obtained during the second year. The curriculum covers twelve quarters of work. Sixty-five students are admitted to the first year class every nine months. The tuition fee averages $450. The registration for 1941-1942 was 269; graduates, 65. During the academic year 1942-1943 the quarters begin June 22, September 29, January 4, and March 29, and will end September 12, December 19, March 27, and June 18. All correspondence relating to general policies should be addressed to W. H. Taliaferro, Ph.D., Dean of the Division of Biological Sciences, or to A. C. Bachmeyer, M.D., Associate Dean, and that pertaining to student affairs to Victor Johnson, M.D., Dean of Medical Students.

UNIVERSITY OF ILLINOIS COLLEGE OF MEDICINE, 1853 West Polk Street.—Organized in 1882 as the College of Physicians and Surgeons. The first class graduated in 1883. It became the Medical Department of the University of Illinois by affiliation in 1897. Relationship with the university was cancelled in June 1912, and was restored in March 1913, when the present title was assumed. Coeducational since 1898. Three years of collegiate work are required for admission. The accelerated program has been adopted involving the admittance and graduation of a class approximately every nine months. The B.S. in medicine degree is conferred at the end of the second year. The faculty is composed of 165 professors and 394 associates, instructors and assistants, a total of 559. The fees for residents of Illinois average $288 per academic year; nonresident, $524. The registration for 1941-1942 was 638; graduates, 165. The present session for juniors and seniors began June 15, 1942 and will end March 29, 1943. Freshmen and sophomores will enroll Sept. 28, 1942 and will complete the year June 5, 1943. The Dean is David J. Davis, M.D.

INDIANA

Bloomington-Indianapolis

INDIANA UNIVERSITY SCHOOL OF MEDICINE, Bloomington; 1040 West Michigan Street, Indianapolis.—Organized in 1903 but did not give all the work of the first two years of the medical course until 1905. In 1907, by union with the State College of Physicians and Surgeons, the complete course in medicine was offered. In 1908 the Indiana Medical College, which was formed in 1905 by the merger of the Medical College of Indiana (organized in 1878), the Central College of Physicians and Surgeons (organized in 1879), and the Fort Wayne College of Medicine (organized in 1879) merged into it. The first class was graduated in 1908. Coeducational since organization. The faculty consists of 270 professors, lecturers, associates and assistants. Three years of collegiate work are required for admission. The B.S. degree in medicine is conferred. The school has been on an all-time program since May 11, 1942. Each school year is divided into three terms. The work given in two terms is equivalent to the work formerly given in a year. The work of the first two terms is given at Bloomington; the remainder of the work at Indianapolis. Regular fee for two terms of work is $217 for residents of Indiana and $422 for nonresidents. The registration for 1941-1942 was 507; graduates, 108. The next regular class will start work on January 7, 1943. The Dean is Willis D. Gatch, M.D., Indianapolis.

IOWA

Iowa City

STATE UNIVERSITY OF IOWA COLLEGE OF MEDICINE, University Campus.—Organized in 1869. First session began in 1870. First class graduated in 1871. Absorbed Drake University College of Medicine in 1913. Coeducational since 1870. The faculty is made up of 56 professors, 74 lecturers, demonstrators and assistants, a total of 130. Three years of collegiate work are required for admission. The B.A. degree in the combined course of liberal arts and medicine is conferred. An accelerated program has been adopted involving the admittance and graduation of a class approximately every nine months. The tuition fee is $226 each year for residents of Iowa and $490 for nonresidents. The registration for 1941-1942 was 282; graduates, 46. The present session for upper classmen began May 11, 1942 and for freshmen June 8, 1942 and will end February 20, 1943. The subsequent session begins February 22, 1943. The Dean is Ewen Murchison MacEwen, M.D.

KANSAS

Lawrence-Kansas City

UNIVERSITY OF KANSAS SCHOOL OF MEDICINE, Lawrence; 39th Street and Rainbow Boulevard, Kansas City.—Organized in 1880. It offered only the first two years of the medical course until 1905, when it merged with the Kansas City (Mo.) Medical College, founded in 1869, the College of Physicians and Surgeons, founded in 1894, and the Medico-Chirurgical College, founded in 1897. Absorbed Kansas Medical College in 1913. The first class graduated in 1906. The clinical courses are given at Kansas City. Coeducational since 1880. The faculty includes 70 professors and 176 instructors, assistants and others, a total of 246. The requirement for admission is three years of collegiate work. The B.S. degree in medicine is conferred at the end of the second year. An accelerated program has been adopted admitting a freshman class in June of each year. Seniors will graduate approximately every nine months. The fees for residents of the state average $238; nonresidents $437. The registration for 1941-1942 was 335; graduates, 81. The present session for freshmen began June 1, 1942. Upper classmen will enroll Sept. 21, 1942 and complete the year May 31, 1943. The Dean is H. R. Wahl, M.D., Kansas City.

KENTUCKY

Louisville

UNIVERSITY OF LOUISVILLE SCHOOL OF MEDICINE, 101 West Chestnut Street.—Organized in 1837 as Louisville Medical Institute. The first class graduated in 1838, and a class graduated each subsequent year except 1863. In 1846 the name was changed to University of Louisville

Medical Department. In 1907 it absorbed the Kentucky University Medical Department; in 1908, the Louisville Medical College, the Hospital College of Medicine and the Kentucky School of Medicine. In 1922 it changed its name to the University of Louisville School of Medicine. Coeducational since organization. Two years of collegiate work are the minimum requirement for admission. Preference is given applicants with a degree or three college years leading to a degree. The faculty numbers 92 professors, and 135 assistants, instructors and others, a total of 227. An accelerated program has been adopted involving the admittance and graduation of a class every nine months. Fees average $452 per academic year. The registration for 1941-1942 was 360; graduates, 88. The present session began July 1, 1942 and will end Feb. 28, 1943. The subsequent session will begin April 1, 1943. The Dean is John Walker Moore, M.D.

LOUISIANA

New Orleans

LOUISIANA STATE UNIVERSITY SCHOOL OF MEDICINE, 1542 Tulane Avenue.—Organized January 1931 as Louisiana State University Medical Center. Present title in 1939. Coeducational. First session October 1931, with students of first and third year. Faculty comprises 29 professors and 139 associate professors, assistant professors, instructors, and assistants, a total of 168. Course covers four sessions of no less than 32 weeks each. Under the accelerated program adopted for the duration of the war, a first year class will be admitted each nine months, and the entire course will be completed within a period of three years. A minimum of three years' collegiate work is required for admission. Total fees, $134 each year for residents of Louisiana; additional tuition of $400 each year for nonresidents. The registration for 1941-1942 was 345; graduates, 85. The present session began June 25, 1942 and will end March 6, 1943. The subsequent session will begin March 11, 1943. The Dean is B. I. Burns, M.D.

TULANE UNIVERSITY OF LOUISIANA SCHOOL OF MEDICINE, 1430 Tulane Avenue.—Organized in 1834 as the Medical College of Louisiana. Classes were graduated in 1835 and in all subsequent years except 1863-1865, inclusive. It became the Medical Department of the University of Louisiana in 1847, and in turn, the Medical Department of the Tulane University of Louisiana in 1884. Present title in 1913. Coeducational since 1915. The faculty comprises 31 professors and 220 associate and assistant professors, instructors and assistants, a total of 251. An accelerated program has been adopted involving the admittance of a class annually and the graduation of a class approximately every nine months. A minimum of three years of collegiate work is required for admission. Total fees average $547 per academic year. The registration for 1941-1942 was 496; graduates, 121. The next session begins Sept. 1, 1942, and ends April 17, 1943. The Acting Dean is Hiram W. Kostmayer, M.D.

MARYLAND

Baltimore

JOHNS HOPKINS UNIVERSITY SCHOOL OF MEDICINE, 710 North Washington Street.—The nucleus of a Medical Faculty was constituted in 1883. Systematic postgraduate instruction in pathology and bacteriology was begun in 1886. School was fully organized and opened in 1893. The first class graduated in 1897. Coeducational since organization. The faculty consists of 70 professors and 421 instructors, assistants and others, a total of 491. The requirement for admission is a collegiate degree. An accelerated program has been adopted involving the admittance and graduation of a class every nine months. The fees average $627 per academic year. The registration for 1941-1942 was 290; graduates, 75. The present session for upper classes began June 1, 1942, and will end Feb. 27, 1943. Freshmen enrolled June 29, 1942 and will complete the year Feb. 27, 1943. The subsequent class will begin March 1, 1943. The Dean is Alan M. Chesney, M.D.

UNIVERSITY OF MARYLAND SCHOOL OF MEDICINE AND COLLEGE OF PHYSICIANS AND SURGEONS, Lombard and Greene Streets.—Organized in 1807 as the College of Medicine of Maryland. The first class graduated in 1810. In 1812 it became the University of Maryland School of Medicine. Baltimore Medical College was merged with it in 1913. In 1915 the College of Physicians and Surgeons of Baltimore was merged and the present name assumed. Coeducational since 1918. The faculty consists of 37 professors and 302 associate and assistant professors and others, a total of 339. Three years of collegiate work are required for admission. The accelerated program has been adopted involving the admittance of a freshman and the graduation of a class approximately every nine months. The fees average $501 for residents of the state; nonresidents $150 additional. The registration for 1941-1942 was 373; graduates, 85. The present session began June 25, and will end March 27, 1943. The subsequent session will begin April 8, 1943. The Acting Dean is H. Boyd Wylie, M.D.

MASSACHUSETTS

Boston

BOSTON UNIVERSITY SCHOOL OF MEDICINE, 80 East Concord Street.—Organized in 1873 as a homeopathic institution. In 1874 the New England Female Medical College, founded in 1848, was merged into it. The first class was graduated in 1874. Became nonsectarian in 1918. Coeducational since organization. Three years of collegiate work are required for admission. The faculty includes 23 professors, 188 associates and others, a total of 211. An accelerated program has been adopted involving the admittance and graduation of a class approximately every nine months. Total fees average $480 per academic year. The registration for 1941-1942 was 217; graduates, 52. The present session began June 30, 1942, and will end Feb. 13, 1943 for 1st and 2d year students, February 20, 1943, for 3d year students and February 27, 1943, for 4th year students. The subsequent session begins March 31, 1943. The Dean is Bennett F. Avery, M.D.

HARVARD MEDICAL SCHOOL, 25 Shattuck Street.—Organized in 1782. The first class graduated in 1788. It has a faculty of 189 members, and 479 other instructors and assistants, a total of 668. Two years of collegiate work are required for admission. The accelerated program has been adopted involving the admittance and graduation of a class approximately every nine months. The fees average $420, plus $5 the first year for matriculation. The registration for 1941-1942 was 533; graduates, 129. The present session began July 1, 1942, and will end February 27, 1943. The subsequent session begins March 8, 1943. The Dean is C. Sidney Burwell, M.D.

TUFTS COLLEGE MEDICAL SCHOOL, 416 Huntington Avenue.—Organized in 1893 as the Medical Department of Tufts College. The first class graduated in 1894. Coeducational since 1894. It has a faculty of 96 professors and 311 assistants, lecturers and others, a total of 407. A bachelor's degree is required for admission. An accelerated program has been adopted involving the admittance and graduation of a class approximately every nine months. The fees average $508 per academic year. The registration for 1941-1942 was 482; graduates, 94. The present session began July 1, 1942 and will end March 1, 1943. The subsequent class will begin about April 1, 1943. The Acting Dean is Dwight O'Hara, M.D.

MICHIGAN

Ann Arbor

UNIVERSITY OF MICHIGAN MEDICAL SCHOOL.—Organized in 1850 as the University of Michigan Department of Medicine and Surgery. The first class graduated in 1851. Present title assumed in 1915. Coeducational since 1870. It has a faculty of 29 professors, 19 associate professors, 27 assistant professors, 118 assistants, instructors and lecturers; a total of 193. The entrance requirements are ninety semester hours. An accelerated program has been adopted involving the admittance of a class annually and the graduation of a class every nine months. The fees average $250 per academic year; for nonresidents $400 a year. The registration for 1941-1942 was 456; graduates, 105. The present session for upper classes began June 15, 1942 and will end February 6, 1943. Freshmen will enrol October 5, 1942. The Dean is A. C. Furstenberg, M.D.

Detroit

WAYNE UNIVERSITY COLLEGE OF MEDICINE, 1516 St. Antoine Street. Organized as the Detroit College of Medicine in 1885 by consolidation of the Detroit Medical College, organized in 1868, and the Michigan College of Medicine, organized in 1879. Reorganized with the title of Detroit College of Medicine and Surgery in 1913. The first class graduated in 1869. In 1918 it became a municipal institution under the control of the Detroit Board of Education. In 1934 the name was changed by action of the Detroit Board of Education to Wayne University College of Medicine, as a part of the program of consolidation of the Detroit city colleges into a university system. Coeducational since 1917. Entrance requirement is an academic degree or 90 semester hours of academic credit with "combined degree" guaranteed by school of arts and sciences. The faculty consists of 45 professors, 287 lecturers and others, a total of 332. An accelerated program has been adopted involving the admittance and graduation of a class approximately every nine months. An internship is a requirement for graduation. The fees average $325 for Wayne County residents, and for nonresidents, $425. The registration for 1941-1942 was 253; graduates, 54. The present session began June 29, 1942, and will end March 20, 1943. The subsequent session will begin April 5, 1943. The Dean is Edgar H. Norris, M.D.

MINNESOTA

Minneapolis

UNIVERSITY OF MINNESOTA MEDICAL SCHOOL.—Organized in 1883 as the University of Minnesota College of Medicine and Surgery, reorganized in 1888 by absorption of St. Paul Medical College and Minnesota Hospital College. The first class graduated in 1889. In 1908 the Minneapolis College of Physicians and Surgeons, organized in 1883, was merged. In 1909 the Homeopathic College of Medicine and Surgery was merged. Present title in 1913. Coeducational since organization. The faculty includes 204 professors, of whom 77 are on full time appointment and 127 on part time, and 134 instructors, 29 of whom are on full-time appointment and 105 on part time, a total of 338. An accelerated program has been adopted involving the admittance and graduation of a class every nine months. The entrance requirements are three years of university work, which must include six semester credits of rhetoric, eight semester credits of physics; thirteen credits of general chemistry, qualitative and quantitative analysis, organic and physical chemistry; eight credits of general zoology and genetics and eugenics; four credits of general psychology, and a reading knowledge of scientific German, with a "C" average in all subjects and in the sciences. Students are required to meet the requirements for a degree of B.S. or B.A. before receiving the degree of Bachelor of Medicine (M.B.), which is granted at the end of the course. The M.D. degree is conferred after a year of intern work, of advanced laboratory work, or of public health work has been completed. Total fees are $256 per academic year for residents and $412 for nonresidents. The registration for 1941-1942 was 477; graduates, 117. The academic year 1942-1943 began June 17 and will end March 18, 1943. The subsequent class will begin March 1943. The Dean is Harold S. Diehl, M.D.

MISSOURI

St. Louis

ST. LOUIS UNIVERSITY SCHOOL OF MEDICINE, 1402 South Grand Boulevard. Organized in 1901 as the Marion-Sims-Beaumont Medical College by union of Marion-Sims Medical College, organized in 1890, and Beaumont Hospital Medical College, organized in 1886. First class graduated in 1902. It became the Medical School of St. Louis University in 1903. The faculty is composed of 81 professors and 251 instructors and assistants, a total of 332. The completion of three years of college study is the minimum admission requirement but students presenting meritorious credits in excess of the minimum are accepted by preference. An accelerated program has been adopted involving the admittance and graduation of a class approximately every nine months. The fees average $536 per academic year. The registration for 1941-1942 was 443; graduates, 94. The present session began June 15, 1942, and will end February 20, 1943. The subsequent session begins March 1, 1943. The Dean is Alphonse M. Schwitalla, S.J., Ph.D.

WASHINGTON UNIVERSITY SCHOOL OF MEDICINE, Kingshighway and Euclid Avenue.—Organized in 1842 as the Medical Department of St. Louis University. The first class graduated in 1843. In 1855 it was chartered as an independent institution under the name of St. Louis Medical College. In 1891 it became the Medical Department of Washington University. In 1899 it absorbed the Missouri Medical College. Coeducational since 1918. The faculty comprises 138 professors and 265 lecturers, instructors and others, a total of 403. Four years of collegiate work are required for admission. The B.S. degree in medicine is conferred at the end of the third or fourth year. An accelerated program has been adopted involving the admittance and graduation of a class approximately every nine months. The fees average $520. The registration for 1941-1942 was 359; graduates, 93. The present session for upper classmen began June 15, 1942 and for freshmen July 13, 1942 and will end March 20, 1943. The subsequent session begins March 22, 1943. The Dean is Philip A. Shaffer, Ph.D.

NEBRASKA

Omaha

CREIGHTON UNIVERSITY SCHOOL OF MEDICINE, 306 North Fourteenth Street.—Organized in 1892 as the John A. Creighton Medical College. The first class graduated in 1893. Present title in 1921. Coeducational since organization. It has a faculty of 79 professors and 76 instructors, lecturers and assistants, a total of 151. Three years of collegiate work required for admission. The B.S. degree in medicine is conferred at the end of the second year. An accelerated program has been adopted involving the admittance and graduation of a class approximately every nine months. The fees average $376 per academic year and $100 additional each year for students who have not taken the major part of their work at Creighton University. The registration for 1941-1942 was 224; graduates, 52. The present session began July 7, 1942 and will end March 15, 1943. The subsequent session will begin March 15, 1943. The Dean is Charles M. Wilhelmj, M.D.

UNIVERSITY OF NEBRASKA COLLEGE OF MEDICINE, Forty-Second Street and Dewey Avenue.—Organized in 1881 as the Omaha Medical College. The first class graduated in 1882. It became the Medical Department of Omaha University in 1891. In 1902 it affiliated with the University of Nebraska, with the present title. The instruction of the first two years was given at Lincoln and of the last two at Omaha until 1913, when the work of all four years was transferred to Omaha. Coeducational since 1882. The faculty is composed of 78 professors and 54 lecturers and instructors, a total of 132. Three years of collegiate work are required for admission. An accelerated program has been adopted involving the admittance and graduation of a class approximately every nine months. The B.S. degree in medicine is conferred at the end of the second year. The fees average $215 per academic year. The registration for 1941-1942 was 321; graduates, 69. The present session began June 15, 1942, and will end March 15, 1943. The subsequent session will begin March 26, 1943. The Dean is C. W. M. Poynter, M.D.

NEW YORK

Albany

ALBANY MEDICAL COLLEGE, 47 New Scotland Avenue.—Organized in 1838. The first class graduated in 1839. It became the Medical Department of Union University in 1873. In 1915 Union University assumed educational control. Coeducational since 1915. The faculty is composed of 86 professors and 109 instructors, assistants and others, a total of 195. A collegiate degree is required for admission, however, students who have completed three years of college work and who have proper specific qualifications will be admitted. This change in the requirements for admission has been instituted for the duration of the present national emergency. An accelerated program has been adopted involving the admittance and graduation of a class approximately every nine months. The fees average $531 per academic year. The registration for 1941-1942 was 150 graduates, 33. The present session began July 6, 1942, and will end March 27, 1943. The subsequent session will begin March 29, 1943. The Dean is R. S. Cunningham, M.D.

Brooklyn

LONG ISLAND COLLEGE OF MEDICINE, 350 Henry Street, Chartered in 1930, was originally organized in 1858 as The Long Island College Hospital. From the collegiate department the first class was graduated in 1860 and the last class in 1930. The first class of the Long Island College of Medicine was graduated in 1931. It is coeducational. It has a faculty of 122 professors, associate, assistant, clinical and assistant clinical professors, and 206 lecturers, associates, instructors, assistants, and others, a total of 328. Three years of collegiate work, including specified courses, are required for admission. The medical course covers four academic years but is being given in three calendar years for the duration of the war. The fees average $610 per academic year. The registration for 1941-1942 was 385, graduates, 90. The present session began July 6, 1942 and will end March 30, 1943. The subsequent session begins March 29, 1943. The President and Dean is Jean Alonzo Curran, M.D.

Buffalo

UNIVERSITY OF BUFFALO SCHOOL OF MEDICINE, 24 High Street.—Organized in 1846. The first class graduated in 1847. It absorbed the Medical Department of Niagara University in 1898. Coeducational since organization. The faculty is composed of 90 professors and 190 associates, assistants and others, a total of 280. The minimum requirement for admission is two years of collegiate work including certain prescribed science courses. An accelerated program has been adopted admitting a freshman class in July of each year. Seniors will graduate approximately every nine months. The fees for the entire course are $2000. The registration for 1941-1942 was 275; graduates, 61. The present session began July 6, 1942 and will end March 1943. The subsequent session for freshmen begins July 5, 1943. The Dean is Edward W. Koch, M.D.

New York

COLUMBIA UNIVERSITY COLLEGE OF PHYSICIANS AND SURGEONS, 630 West One Hundred and Sixty-Eighth Street.—The medical faculty of Columbia College, then known as King's College, was organized in 1767. Instruction was interrupted by the War of the Revolution. The faculty was reestablished in 1792 and merged in 1814 with the College of Physicians and Surgeons, which had received an independent charter in 1807. In 1860 the College of Physicians and Surgeons became the Medical Department of Columbia College. This merger became permanent by legislative enactment in 1891. Columbia College became Columbia University in 1896. The medical school has been coeducational since 1917. The faculty is composed of 297 professors and 583 instructors, demonstrators and others, a total of 880. Three years of collegiate work are required for admission. During the war, the school will remain in session throughout the year and entering classes will be enrolled at intervals of approximately nine months. Fees average $538 per academic year. The registration for 1941-1942 was 428; graduates, 95. The present session began July 7, 1942 and will end March 13, 1943. The subsequent session begins March 22, 1943. The Dean is Willard C. Rappleye, M.D.

NEW YORK MEDICAL COLLEGE, FLOWER AND FIFTH AVENUE HOSPITALS, 1 East 105th Street.—Organized in 1858. Incorporated in 1860 as the Homeopathic Medical College of the State of New York. The title New York Homeopathic Medical College was assumed in 1869; the title New York Homeopathic Medical College and Hospital in 1887; the title New York Homeopathic Medical College and Flower Hospital in 1908; the title New York Medical College and Flower Hospital in 1936; the present title of New York Medical College, Flower and Fifth Avenue Hospitals, June 22, 1938. The first class graduated in 1861. Coeducational since 1919. A baccalaureate degree or its equivalent required for admission. An accelerated program has been adopted involving the admittance and graduation of a class approximately every nine months. It has a faculty of 64 professors and associate professors, 47 assistant professors, 285 lecturers and assistants, a total of 396. The fees average $663 per academic year. The registration for 1941-1942 was 328; graduates, 77. The present session began July 1, 1942, and will end March 20, 1943. The subsequent session begins April 12, 1943. The Dean is J. A. W. Hetrick, M.D.

NEW YORK UNIVERSITY COLLEGE OF MEDICINE, 477 First Avenue.—The Medical Department of New York University (then called the University of the City of New York) was organized in 1841. In 1898 it united with the Bellevue Hospital Medical College, organized in 1861, under the name of University and Bellevue Hospital Medical College. In 1935 the name was changed to New York University College of Medicine. Coeducational since 1919. The faculty is composed of 176 professors, associate, assistant, clinical and assistant clinical professors and 351 lecturers, instructors and others, a total of 527. An accelerated program has been adopted involving the admittance and graduation of a class approximately every nine months. Entrance requirements are three full years of study in an approved college of arts and sciences. The fees average $600 per academic year. The registration for 1941-1942 was 506; graduates, 125. The present session began June 3, 1942 and will end in March 1943. The subsequent session begins April 1, 1943. The Dean is Currier McEwen, M.D.

CORNELL UNIVERSITY MEDICAL COLLEGE, 1300 York Avenue.—Organized in 1898. Coeducational since organization. The first year was formerly offered to approximately one-third of the class at Ithaca but in 1938 this division was discontinued and all work is now given in New York City. The faculty is composed of 161 professors and 348 instructors, assistants and others, a total of 509. All students admitted are from approved colleges for premedical training. The accepted students are largely holders of a college degree, or those having three years of college work and candidates for a baccalaureate degree on successful completion of the first year in medicine. A limited number of acceptances will be made during the present emergency, however, of students who have the equivalent of three years of college but from institutions not offering the baccalaureate degree under the professional option plan. An accelerated program has been adopted involving the admittance and graduation of a class approximately every nine months. The tuition for the academic year is $600 and Student Hospitalization Insurance $9. The additional fees are as follows: matriculation fee for first year students $10; breakage deposit for first and second year students $10; and a

graduation fee for seniors $25. The registration for 1941-1942 was 311; graduates, 75. The present session began July 8, 1942 and will end March 25, 1943. The subsequent session will begin April 5, 1943. The Dean is Joseph C. Hinsey, Ph.D.

Rochester

UNIVERSITY OF ROCHESTER SCHOOL OF MEDICINE AND DENTISTRY, 260 Crittenden Boulevard.—Organized in 1925 as the Medical Department of the University of Rochester. Coeducational since organization. The faculty is composed of 64 professors, 220 lecturers, assistants, instructors and others, a total of 284. An accelerated program has been adopted involving the admittance and graduation of a class approximately every nine months. Three years of collegiate work are required for admission. The fees average $500 per academic year. The registration for 1941-1942 was 228; graduates 44. The present session began July 6, 1942 and will end March 20, 1943. The subsequent session begins March 29, 1943. The Dean is George Hoyt Whipple, M.D.

Syracuse

SYRACUSE UNIVERSITY COLLEGE OF MEDICINE, 766 Irving Avenue.—Organized in 1872, when the Geneva Medical College, chartered in 1834, was removed to Syracuse, under the title "The College of Physicians and Surgeons of Syracuse University." Present title assumed in 1875, when a compulsory three-year graded course was established. The first class graduated in 1873 and a class graduated each subsequent year. In 1889 the amalgamation with the university was made complete. Course extended to four years in 1896. Coeducational since organization. The faculty is composed of 51 professors and 184 associate and assistant professors, lecturers and instructors, a total of 235. Three years of a recognized college course are required for admission. An accelerated program has been adopted involving the completion of the four year course in three years; admitting a freshman class annually. The fees average $600 per academic year. The enrolment for 1941-1942 was 171; graduates, 34. The present session began July 9, 1942 and will end March 1943. The subsequent session for freshmen will begin in July 1943. The Dean is H. G. Weiskotten, M.D.

NORTH CAROLINA

Durham

DUKE UNIVERSITY SCHOOL OF MEDICINE.—Organized in 1925. The first class was admitted, Oct. 1, 1930. Coeducational. The faculty is composed of 11 professors and 213 associate and assistant professors, lecturers, instructors and assistants, a total of 224. The entrance requirements are ninety hours of collegiate work. The academic year consists of four quarters of eleven weeks each, which must be taken consecutively, with graduation in three calendar years. The B.S. degree in medicine may be conferred for special work after six quarters. Students are urged to spend three years in hospital or laboratory work after graduation and must give assurance satisfactory to the executive committee that they will spend at least two years. Active duty with the Army, Navy or Public Health Service can replace the second year. The fees are $450 for each year of three quarters. The registration for 1941-1942 was 262; graduates, 64. During 1942-1943 the quarters begin July 6, October 5, January 4, March 29 and end September 19, December 19, March 20, and June 12. The first year students will be enrolled March 29, 1943 and February 1, 1944. The Dean is Wilburt C. Davison, M.D.

OHIO

Cincinnati

UNIVERSITY OF CINCINNATI COLLEGE OF MEDICINE, Eden and Bethesda Avenues.—Organized in 1909 by the union of the Medical College of Ohio (founded in 1819) with the Miami Medical College (founded in 1852). The Medical College of Ohio became the Medical Department of the University of Cincinnati in 1896. Under a similar agreement, March 2, 1909, the Miami Medical College also merged with the University when the title of Ohio-Miami Medical College of the University of Cincinnati was taken. Present title assumed in 1915. Coeducational since organization. Candidates for admission to the freshman class must present three years of college preparation of not less than ninety hours. Liberal Arts students of the University of Cincinnati may sign up for the seven-year combined Liberal Arts and Medical program. The B.S. degree is granted on the joint recommendation of the Faculties of the College of Liberal Arts and Medicine at the end of the first medical year. The faculty consists of 112 professors, associate and assistant professors, 350 instructors, etc., a total of 462. During the period of the war emergency the college will operate on an accelerated program. A new class will be admitted every nine months. Each session will consist of thirty-two weeks of work and there will be a short recess between the major sessions. The present session began June 29, 1942 and will end February 26, 1943. The subsequent class will be admitted March 22, 1943. Tuition is as follows: For legal residents of Cincinnati $485 a year plus breakage fees, ($50 additional for those not legal residents of Cincinnati). The registration for 1941-1942 was 307; graduates, 77. The Dean is Stanley Dorst, M.D.

Cleveland

WESTERN RESERVE UNIVERSITY SCHOOL OF MEDICINE, 2109 Adelbert Road.—Organized in 1843 as the Cleveland Medical College in cooperation with Western Reserve College. The first class graduated in 1844 (a celebration of the Centenary is planned for April 5 and 6, 1943). It assumed the present title in 1881. In 1910 the Cleveland College of Physicians and Surgeons was merged. Coeducational since 1919. The faculty includes 99 professors and 289 lecturers, assistants and others, a total of 388. The curriculum covers four scholastic years of 36 weeks each. During the war emergency, these will be continuous, so that the entire course will be completed in 144 weeks. Three years of collegiate work are required for admission and a baccalaureate degree for graduation. During the war, the degree may be waived for outstanding students. The fees average $529 per academic year. The registration for 1941-1942 was 293; graduates, 60. The present session began June 22, 1942 and will end February 26, 1943. The subsequent session begins March 1, 1943. The Dean is Torald Sollmann, M.D.

Columbus

OHIO STATE UNIVERSITY COLLEGE OF MEDICINE, Neil and Eleventh Avenues.—Organized in 1907 as the Starling-Ohio Medical College by the union of Starling Medical College (organized in 1847 by charter granted by the State Legislature changing the name from Willoughby Medical College, which was chartered March 3, 1834) with the Ohio Medical University (organized 1890). In 1914 it became an integral part of the Ohio State University with its present title. Coeducational since organization. The faculty consists of 86 professors, associate and assistant professors, 105 lecturers, instructors, demonstrators and others, a total of 191. Three years of collegiate work are required for admission. An accelerated program has been adopted involving the admittance and graduation of a class every nine months. Tuition fees average $318 per academic year and $150 additional for nonresidents. The registration for 1941-1942 was 304; graduates, 79. The present session began June 23, 1942 and will end March 19, 1943. The subsequent session will begin March 30, 1943. The Acting Dean is Leslie L. Bigelow, M.D.

OKLAHOMA

Oklahoma City

UNIVERSITY OF OKLAHOMA SCHOOL OF MEDICINE, 801 East Thirteenth Street.—Organized in 1900. Until 1910 gave only the first two years of the medical course at Norman, Oklahoma, after which a clinical department was established at Oklahoma City by taking over the Medical School of Epworth University. The first class graduated in 1911. Coeducational since organization. A new medical school building and a second teaching hospital became available in 1928, and since September of that year the entire four year course has been given in Oklahoma City. It has a faculty of 27 professors, 28 associate professors, 20 assistant professors and 122 associates, lecturers, visiting lecturers, instructors and assistants, a total of 197. Three years of college work are a prerequisite for admission. The course covers four years of nine months each. An accelerated program will be adopted beginning June 1, 1943. Fees: $50 "Maintenance and Incidental Fee" per semester. Other annual course fees average $128, $95, $53, and $58, in the order given, beginning with the freshman year. For students not residents of Oklahoma there is a tuition charge of $350 a year, plus laboratory and course fees as indicated for the different years. The registration for 1941-1942 was 235; graduates, 55. The next session begins Sept. 14, 1942 and ends May 31, 1943. The Dean is Robert U. Patterson, M.D.

OREGON

Portland

UNIVERSITY OF OREGON MEDICAL SCHOOL, Marquam Hill.—Organized in 1887. The first class graduated in 1888, and a class graduated each subsequent year except 1898. The Willamette University Medical Department was merged in 1913. Coeducational since organization. It has a faculty of 91 professors and 164 lecturers, assistants and others, a total of 255. Entrance requirements are three years of collegiate work. An accelerated program has been adopted involving the admittance and graduation of a class approximately every nine months. The total fees are, respectively, $380, $375, $370 and $376 for residents of Oregon, and $60 a year additional for nonresidents. The registration for 1941-1942 was 260; graduates, 51. The present session began June 22, 1942 and will end March 20, 1943. The subsequent session will begin March 29, 1943. The Dean is Richard B. Dillehunt, M.D.

PENNSYLVANIA

Philadelphia

THE HAHNEMANN MEDICAL COLLEGE AND HOSPITAL OF PHILADELPHIA, 235 North Fifteenth Street.—Organized in 1848 as The Homeopathic Medical College of Pennsylvania. In 1869 it united with The Hahnemann Medical College of Philadelphia, taking the latter title. Assumed present title in 1885. The first class graduated in 1849. Coeducational beginning with 1941-1942 session. Three years of collegiate work in an approved college of arts and sciences are required for admission. It has a faculty of 113 professors and 114 lecturers, instructors, and others, a total of 227. An accelerated program has been adopted involving the admittance and graduation of a class approximately every nine months. Fees are, respectively, $515, $512, $512 and $535. The registration for 1941-1942 was 541; graduates, 130. The present session began July 27, 1942 and will end March 25, 1943. The subsequent session will begin April 5, 1943. The Dean is William A. Pearson, M.D.

JEFFERSON MEDICAL COLLEGE OF PHILADELPHIA, 1025 Walnut Street.—Organized in 1825 as the Medical Department of Jefferson College, Canonsburg, Pa. It was chartered with its present title in 1838. Classes have been graduated annually beginning 1826. In 1838 a separate university charter was granted without change of title, since which time it has continued under the direction of its own board of trustees. It has a faculty of 83 professors, associate and assistant professors and 212 associates, lecturers, demonstrators and instructors, a total of 295. Four years of college work and a bachelor's degree are required for admission. An accelerated program has been adopted involving the admittance and graduation of a class approximately every nine months.

The total fees for the current session are, respectively, $505, $440, $430 (Transfers, $480), and $430. The registration for 1941-1942 was 530; graduates, 131. The current session for Freshmen and Seniors extends from June 29, 1942 to the latter part of February 1943; for Sophomores and Juniors from August 28, 1942 to the latter part of April 1943. The subsequent session begins April 15, 1943. The Dean is William Harvey Perkins, M.D.

TEMPLE UNIVERSITY SCHOOL OF MEDICINE, 3400 North Broad Street.—Organized in 1901. The first class graduated in 1904. Coeducational since organization. The faculty numbers 34 professors and 247 associates, assistants and others, a total of 281. An accelerated program has been adopted involving the admittance and graduation of a class approximately every nine months. Three years of collegiate work are required for admission. The fees average $492 per academic year. The registration for 1941-1942 was 447; graduates, 117. The present session for upper classes began July 1, 1942 and will end March 15, 1942. Freshmen enrolled Aug. 1, 1942. The subsequent session begins April 1, 1943. The Dean is William N. Parkinson, M.D.

UNIVERSITY OF PENNSYLVANIA SCHOOL OF MEDICINE, Thirty-Sixth and Pine Streets.—Organized in 1765. Classes were graduated in 1768 and in all subsequent years except 1772 and 1775-1779, inclusive. The original title was the Department of Medicine, College of Philadelphia. The present title was adopted in 1909. It granted the first medical diploma issued in America. In 1916 it took over the Medico-Chirurgical College of Philadelphia to develop it as a graduate school. Coeducational since 1914. The faculty consists of 115 professors, associate and assistant professors, and 434 lecturers, associates, instructors and others, a total of 549. Three years of collegiate work are required for admission. An accelerated program has been adopted involving the admittance and graduation of a class approximately every nine months. The tuition fee is $500 each year, with a deposit fee of $15, a general fee including student health of $15 and a matriculation fee of $5. The registration for 1941-1942 was 496; graduates, 129. The present session began July 27, 1942, and will end March 27, 1943. The subsequent session begins April 5, 1943. The Dean is William Pepper, M.D.

WOMAN'S MEDICAL COLLEGE OF PENNSYLVANIA, Henry Avenue and Abbottsford Road, East Falls.—Organized in 1850. Classes were graduated in 1852 and in all subsequent years except 1862. It has a faculty of 75 professors and 65 assistants, lecturers and others, a total of 140. At least three years of collegiate work are required for admission and candidates with a degree are given preference. The curriculum covers four years of eight and one-half months each. Total fees are $450 yearly. The registration for 1941-1942 was 114; graduates, 18. The present session for senior students began July 1, 1942 and will end March 1, 1943. For all other classes the next session will begin Sept. 1, 1942 and end May 28, 1943. The Dean is Margaret D. Craighill, M.D.

Pittsburgh

UNIVERSITY OF PITTSBURGH SCHOOL OF MEDICINE, Bigelow Boulevard.—Organized in 1886, as the Western Pennsylvania Medical College and in 1908 became an integral part of the University of Pittsburgh, removing to the university campus in 1910. The first class graduated in 1887. Coeducational since 1899. The faculty is composed of 30 professors and 370 associates, assistants and others, a total of 400. Entrance requirements are two years of collegiate work. An accelerated program has been adopted involving the admittance and graduation of a class approximately every nine months. The total fees are $500 each year. The registration for 1941-1942 was 315; graduates, 73. The present session began July 6, 1942 and will end about March 20, 1943. The subsequent session will begin April 5, 1943. The Dean is W. S. McElroy, M.D.

SOUTH CAROLINA

Charleston

MEDICAL COLLEGE OF THE STATE OF SOUTH CAROLINA, 16 Lucas Street.—Organized in 1823 as the Medical College of South Carolina. The first class graduated in 1825. In 1832 a medical college bearing the present title was chartered and the two schools continued as separate institutions until they were merged in 1838. Classes were graduated in all years except 1862 to 1865, inclusive. In 1913, by legislative enactment, it became a state institution. Coeducational from 1895 to 1912, when its privileges for women were withdrawn, but restored in 1917. It has a faculty of 46 professors and 48 associates, instructors and others, a total of 94. An accelerated program has been adopted involving the admittance and graduation of a class approximately every nine months. Three years of collegiate work are required for admission. The total fees are $272 each year. Fees for nonresidents of the state, $422 each year. The registration for 1941-1942 was 183; graduates, 43. The present session began June 25, 1942 and will end March 20, 1943. The subsequent class will begin March 28, 1943. The Dean is Robert Wilson, M.D.

TENNESSEE

Memphis

UNIVERSITY OF TENNESSEE COLLEGE OF MEDICINE, 874 Union Avenue.—Organized in 1876 at Nashville as Nashville Medical College. First class graduated 1877, and a class graduated each subsequent year. Became Medical Department of University of Tennessee in 1879. In 1909 it united with the Medical Department of the University of Nashville to form the joint Medical Department of the Universities of Nashville and Tennessee. This union was dissolved in 1911. The trustees of the University of Nashville by formal action of that board named the University of Tennessee College of Medicine as its legal successor. In 1911 it moved to Memphis, where it united with the College of Physicians and Surgeons. The Memphis Hospital Medical College was merged in 1913. Lincoln Memorial University Medical Department was merged in 1914. Coeducational since 1911. The faculty includes 115 professors and 138 assistants, instructors and others, a total of 253. Two years of collegiate work are required for admission. The B.S. degree in medicine is conferred at the end of the second year. The fees are $120 quarterly. For residents of the state the charge is reduced $50 each quarter. The registration for 1941-1942 was 470; graduates, 98. During the academic year of 1942-1943 the quarters begin July 7, Sept. 24, Jan. 1, and March 22, and end Sept. 23, Dec. 12, March 20 and June 9. The Dean is O. W. Hyman, Ph.D.

Nashville

MEHARRY MEDICAL COLLEGE, Eighteenth Avenue North and Heffernan Street. (For Negro Youth.)—This school was organized in 1876 as the Meharry Medical Department of Central Tennessee College, which became Walden University in 1900. First class graduated in 1877. Obtained new charter independent of Walden University in 1915. Coeducational since 1876. The faculty is made up of 49 professors and 30 instructors and lecturers, a total of 79. Three years' work in a college of liberal arts is required for admission. Tuition fees are, respectively, $300, $290, $280 and $295 each year. The curriculum covers four academic years of thirty-four weeks each. Registration for 1941-1942 was 231; graduates, 50. The next session begins September 28, 1942 and ends June 6, 1943. Beginning September, 1942, Meharry Medical College will institute the quarter system; beginning next school year, 1943-1944 (July) Meharry will initiate an accelerated schedule. The Dean is Michael J. Bent, M.D.; the President is Edward L. Turner, M.D.

VANDERBILT UNIVERSITY SCHOOL OF MEDICINE, Twenty-First Avenue South at Edgehill.—This school was founded in 1874. The first class graduated in 1875. Coeducational since 1925. The faculty numbers 251. For matriculation, students must be graduates of collegiate institutions of recognized standing or seniors in absentia, who will receive the bachelor degree from their college after having completed successfully one year of work in the school of medicine. The course covers four academic years of nearly nine months each, but due to the accelerated program, the four year course is now completed in three calendar years. The fees average $466 per academic year. The registration for 1941-1942 was 202; graduates, 51. The present session began June 10, 1942 and will end March 22, 1943; the following session begins March 24, 1943. The Dean is Waller S. Leathers, M.D.

TEXAS

Dallas

BAYLOR UNIVERSITY COLLEGE OF MEDICINE, 810 College Avenue.—Organized in 1900 as the University of Dallas Medical Department. In 1903 it took its present name and became the Medical Department of Baylor University. It acquired the charter of Dallas Medical College in 1904. Coeducational since organization. The first class graduated in 1901. The faculty consists of 117 professors and 115 instructors and assistants, a total of 232. Entrance requirements are three years of collegiate work. The course covers four years of eight months each. The fees are, respectively, $423, $413, $403, $428. The registration for 1941-1942 was 321; graduates, 75. The next session begins Sept. 28, 1942, and ends May 31, 1943. The Dean is W. H. Moursund, M.D.

Galveston

UNIVERSITY OF TEXAS MEDICAL BRANCH, 912 Avenue B. Organized in 1891. The first class graduated in 1892. Coeducational since organization. It has a faculty of 40 professors and 107 instructors and assistants, a total of 147. The medical branch has been operating on an accelerated basis on a four quarter system since June 16, 1941. Each quarter consists of eleven weeks. The fees average $70 per academic year. The registration for 1941-1942 was 384; graduates, 99. The present freshman class entered on June 22, 1942. The next senior class will complete its work in December 1942. The subsequent entering class will enrol in March 1943. The Dean is John W. Spies, M.D.

VERMONT

Burlington

UNIVERSITY OF VERMONT COLLEGE OF MEDICINE, Pearl Street, College Park.—Organized with complete course in 1822. Classes graduated in 1823 to 1836, inclusive, when the school was suspended. It was reorganized in 1853 and classes were graduated in 1854 and in all subsequent years. Coeducational since 1920. It has a faculty of 61 professors and 51 instructors, and assistants, a total of 112. Three years of collegiate work are required for admission. An accelerated program has been adopted involving the admittance and graduation of a class every nine months. For residents of Vermont the tuition fee is $400 each session. Nonresidents are charged an additional $150 each session. A $25 fee is charged for the doctor's degree. The registration for 1941-1942 was 127; graduates, 31. The present session began July 6, 1942 and will end March 29, 1943. The subsequent session begins April 5, 1943. The Dean is Clarence H. Beecher, M.D.

VIRGINIA

Charlottesville

UNIVERSITY OF VIRGINIA DEPARTMENT OF MEDICINE.—Organized in 1827. Classes were graduated in 1828 and in all subsequent years except 1865. Coeducational since the session of 1920-1921. An accelerated program has been adopted involving the admittance and graduation of a class approximately every nine months. It has a faculty of 47 professors and 47 lecturers, instructors, assistants and others, a total of 94. Three years of college work are required for admission. For residents

of Virginia the total fees average $388 per academic year. Nonresidents are charged an additional $50 each year. The registration for 1941-1942 was 249; graduates, 62. The present session began June 29, 1942, and will end March 12, 1943. The subsequent session will begin March 29, 1943. The Dean is Harvey Ernest Jordan, PhD.

Richmond

MEDICAL COLLEGE OF VIRGINIA, Twelfth and Marshall Streets.—Organized in 1838 as the Medical Department of Hampden Sydney College. Present title was taken in 1854. In 1913 the University College of Medicine was merged. In 1914 the North Carolina Medical College was merged. Coeducational since 1918. Classes were graduated in 1839 and in all subsequent years. It has a faculty of 92 professors and 153 lecturers, instructors and others, a total of 245. Three years of collegiate work are required for admission. An accelerated program has been adopted involving the admittance and graduation of a class approximately every nine months. Fees average $379 per academic year. Nonresidents are charged an additional $125 each year. The registration for 1941-1942 was 302; graduates, 64. The present session began July 6, 1942 and will end March 20, 1943. The subsequent session will begin April 5, 1943. The Dean is Jacques P. Gray, M.D.

WISCONSIN

Madison

UNIVERSITY OF WISCONSIN MEDICAL SCHOOL, 418 North Randall Avenue.—Organized in 1907. Gave only the first two years of the medical course until 1925, when the clinical years were added. Coeducational since organization. Three years of collegiate work are required for admission. The B.S. degree in medical science is conferred at the end of the first year. An accelerated program has been adopted involving the admittance of a class once a year and a graduating class every nine months. It has a faculty of 64 professors and 67 lecturers, instructors and others, a total of 131. The fees average $206 per academic year. An additional fee of $200 each year is charged nonresidents. The registration for 1941-1942 was 257; graduates, 45. The present session began July 1, 1942, and will end March 2, 1943. The subsequent session for freshman will begin July 1, 1943. The Acting Dean is Walter J. Meek, Ph.D.

Milwaukee

MARQUETTE UNIVERSITY SCHOOL OF MEDICINE, 561 North Fifteenth Street.—Organized in December 1912, by the merger of the Milwaukee Medical College and the Wisconsin College of Physicians and Surgeons. Coeducational since organization. It has a faculty of 191. Three years of collegiate work are required for admission. The curriculum covers the equivalent of four years of eight and a half months each, and a one year internship in an approved hospital. During the duration of the war the accelerated program will cover three semesters each calendar year. The fees average $452 per academic year. The registration for 1941-1942 was 332; graduates, 70. The present session began July 6th, 1942, and will end February 25, 1943. The subsequent session begins March 1, 1943. The Dean is Eben J. Carey, M.D.

CANADA

Alberta

UNIVERSITY OF ALBERTA FACULTY OF MEDICINE, Edmonton.—Organized in 1913. Coeducational since organization. Has given the complete six-year medical course since 1924. New course — three years pre-medical, four years medicine, 1 year internship for medical degree commences 1942-43. The Faculty includes 23 full time and 45 part time professors, instructors, assistants and others, a total of 68. Tuition for the second, third and fourth years is $225, for the fifth and sixth years $235. The registration for 1941-1942 was 194; graduates, 47. The present session (accelerated) began June 1, 1942 and will end January 4, 1943. All medical classes are being accelerated. The following session opens February 1, 1943. The Acting Dean is John James Ower, M.D.

Manitoba

UNIVERSITY OF MANITOBA FACULTY OF MEDICINE, Bannatyne Avenue, Winnipeg. Organized in 1883 as Manitoba Medical College; first class graduated in 1886, and a class graduated each subsequent year. The college transferred all its property to the University of Manitoba in 1919 and assumed the present title. Coeducational since organization. The faculty includes 26 professors and 80 instructors and assistants, a total of 106. Matriculation requirements include two years of collegiate work in the faculty of arts and science of a recognized university. An accelerated program has been adopted. The course extends over four years of eight months each and a hospital internship. The fees average $254 yearly. The registration for 1941-1942 was 223; graduates, 54. The present session began for 1st year, Aug. 1; 2nd year, July 27; 3rd and 4th years, July 20 and will end March 20, March 31, April 5 and March 31, 1943. The Dean is A. T. Mathers, M.D.

Nova Scotia

DALHOUSIE UNIVERSITY FACULTY OF MEDICINE, Morris Street, Halifax.—Organized in 1867. Incorporated as the Halifax Medical College in 1875. Reorganized as an examining faculty, separate from the Halifax Medical College, in 1885. In 1911, in accordance with an agreement between the Governors of Dalhousie University and the Corporation of the Halifax Medical College, the work of the latter institution was discontinued and a full teaching faculty was established by the university. First class graduated in 1872. Coeducational since 1871. It has a faculty of 39 professors and 38 demonstrators, lecturers and others, a total of 77, 9 of whom are in active service, and are on leave for the duration. Requires for matriculation two years of arts. The regular medical course covers four years and a hospital internship of one year. In order to meet the needs of the Canadian Armed Forces the classes in the last three years have been accelerated. The content of the third and fourth years remains the same but holidays have been practically eliminated. The final year internship has for the time being been reduced to eight months. The third and fourth years began their studies on May 18th and continue until the end of December. The first and second years will begin on September 8, 1942 and end on May 11, 1943. The fees average $314 yearly; $250 additional registration fee payable by students outside the British Empire. The registration for 1941-1942 was 164; graduates, 42. The Dean is H. G. Grant, M.D.

Ontario

QUEEN'S UNIVERSITY FACULTY OF MEDICINE, Kingston.—Organized 1854, first class graduated in 1855, and a class graduated each subsequent year. The faculty numbers 65. The fees average $232 yearly. The course covers six years of thirty teaching weeks each. An accelerated program has been adopted and the course may now be completed in four and one-half years. Freshmen will be admitted annually. The registration for 1941-1942 was 266; graduates, 41. The next session begins for 3rd, 4th, 5th and 6th year students on June 1, 1942; for 2nd year students on August 24, 1942; and for 1st year students on September 22, 1942. The next class will graduate Dec. 31, 1942. The Dean is Frederick Etherington, M.D.

UNIVERSITY OF TORONTO FACULTY OF MEDICINE, Toronto.—Organized in 1843 as the Medical Faculty of King's College. Abolished in 1853. Reestablished in 1887. In 1902 it absorbed Victoria University Medical Department, and in 1903 it absorbed the Medical Faculty of Trinity University. Coeducational since 1903. The B.Sc. (Med.) degree is conferred at the end of the third or sixth year. It has a faculty of 77 professors and 348 lecturers, associates and others, a total of 425. The fees are $240 for the first year; for the second $315; $315 for the third year, $340 for the fourth and fifth years, and $348 for the sixth year. The registration for 1941-1942 was 804; graduates, 116. An accelerated program has been adopted and the duration of the academic session has been increased to ten months extending from August 24, 1942 to June 26, 1943. The final year class will graduate Dec. 31, 1942 and every eight months thereafter. The Dean is W. E. Gallie, M.D.

UNIVERSITY OF WESTERN ONTARIO MEDICAL SCHOOL, Ottaway Avenue, London.—Organized in 1881 as the Western University Faculty of Medicine; first class graduated in 1883, and a class graduated each subsequent year. Present title in 1923. The medical school has been under the control of the Board of Governors of the University of Western Ontario since 1913. Coeducational since 1913. The faculty numbers 95. The normal course of study covers six years of eight months each. The total fees to residents of Canada for the last four years respectively, are $352, $348, $356, and $228; nonresidents are charged $642, $638, $646, and $391 for each of the last four years. The registration for 1941-1942 was 224; graduates, 36. Owing to war conditions, the next session begins for the sixth year August 24, 1942, and ends December 31, 1942. Classes for the second, third, fourth and fifth years begin August 24, 1942; and end for the second year June 19, 1943; for the third year May 29, 1943; for the fourth and fifth years February 6, 1943. The Dean is F. J. H. Campbell, M.D.

Quebec

LAVAL UNIVERSITY FACULTY OF MEDICINE, Quebec.—The Quebec School of Medicine, organized in 1848, became in 1852 the Laval University Faculty of Medicine; first class graduated in 1853, and a class graduated each subsequent year. An accelerated program has been adopted. The faculty numbers 91. The fees for each of the medical years are $175 for residents of Canada. Nonresidents are charged an extra fee of $175 each year. The premedical requirement is a B.A. degree or its equivalent. The registration for 1941-1942 was 324; graduates, 65. The present session for the 2d, 3d, 4th and 5th years began July 15, 1942. The next class will graduate Jan. 31, 1943. Freshmen will enrol Sept. 1, 1942. The Dean is Charles Vézina, M.D.

MCGILL UNIVERSITY FACULTY OF MEDICINE, 3640 University Street, Montreal.—Founded in 1823 as Montreal Medical Institution; became the Medical Faculty of McGill University in 1829; first class graduated under the university auspices in 1833. No session between 1836-1839, owing to political troubles. In 1905 it absorbed the Faculty of Medicine of the University of Bishop's College. Coeducational since 1919. Three years of collegiate work are required for admission. An acceleration program has been adopted for the upper classes. The faculty consists of 61 professors and 199 lecturers and others, a total of 260. The total fee for each of the four medical years are $391 plus $100 for non-British subjects. The registration for 1941-1942 was 397; graduates, 90. The present session for sophomores, juniors and seniors began June 15, 1942. Freshmen will enrol Sept. 9, 1942. The next class will graduate January 31, 1943. The Dean is J. C. Meakins, M.D.

UNIVERSITY OF MONTREAL FACULTY OF MEDICINE, 1265 St. Denis Street, Montreal.—Organized in 1843 as the Montreal School of Medicine and Surgery. In 1891, by Act of Parliament, the Medical Faculty of Laval University (organized in 1878) was absorbed. Present name by Act of Parliament in 1920. A class was graduated in 1843 and each subsequent year. Coeducational since 1925. The faculty numbers 150. The B.A. or B.S. degree, or its equivalent, is the premedical requirement. An accelerated program has been adopted. An internship is required for graduation. The fees average $239 yearly. The registration for 1941-1942 was 209; graduates, 48. The present session for juniors and seniors began June 1, 1942 and will end March 31, 1943. Freshmen and sophomores will enrol Sept. 1, 1942 and will complete the year April 17, 1943. The Dean is Albert LeSage, M.D.

DESCRIPTION OF SCHOOLS OF THE BASIC MEDICAL SCIENCES

ALABAMA

University (Tuscaloosa)

UNIVERSITY OF ALABAMA SCHOOL OF MEDICINE.—Organized in 1859 at Mobile as the Medical College of Alabama. Classes graduated in 1861 and subsequent years excepting 1862 to 1868, inclusive. Reorganized in 1897 as the medical department of the University of Alabama. Present title assumed in 1907, when all property was transferred to the University of Alabama. In 1920 clinical teaching was suspended and the medical school was removed to the university campus near Tuscaloosa. Coeducational since 1920. Minimum entrance requirements are three years of collegiate work. An accelerated program has been adopted and a new freshman class will be admitted approximately every nine months. The faculty includes 15 professors and 14 instructors, assistants, and others, a total of 29. The tuition fees are $301 each academic year plus $75 differential for nonresidents. The registration for 1941-1942 was 98. The present session began June 8, 1942 and will end February 5, 1943. The subsequent session will begin March 11, 1943. The Dean is Stuart Graves, M.D.

MISSISSIPPI

University

UNIVERSITY OF MISSISSIPPI SCHOOL OF MEDICINE.—Organized in 1903. Coeducational since organization. A clinical department was established at Vicksburg in 1908 but was discontinued in 1910 after graduating one class. An accelerated program has been adopted and a new freshman class is admitted each nine months. Entrance requirement is three years of collegiate work or ninety semester hours of credit. The B.S. degree in medicine is conferred at the end of the second year. The faculty includes 9 professors, 2 assistant professors, 1 adjunct professor, 17 instructors, assistants and others, a total of 29. The total fees of the first year are $375, and for the second year $348. The registration for 1941-1942 was 55. The present session began June 1, 1942, and will end January 30, 1943. The subsequent session begins February 1, 1943. The Dean is B. S. Guyton, M.D.

MISSOURI

Columbia

UNIVERSITY OF MISSOURI SCHOOL OF MEDICINE.—Organized at St. Louis in 1845; was discontinued in 1855 but was reorganized at Columbia in 1872. Teaching of the clinical years was suspended in 1909. Coeducational since 1872. An accelerated program has been adopted involving the admittance of a class every nine months. The faculty includes 20 professors and 15 instructors, lecturers and others, a total of 35. The entrance requirements are 90 semester hours of collegiate work. The B.S. degree in medicine is conferred at the end of the second year. Total fees for the first year are $225, for the second, $215. The registration for 1941-1942 was 71. The current session began June 15, 1942 and will end March 18, 1943. The subsequent session will begin March 22, 1943. The Dean is Dudley S. Conley, M.D.

NEW HAMPSHIRE

Hanover

DARTMOUTH MEDICAL SCHOOL.—Organized by Dr. Nathan Smith in 1797. The first class graduated in 1798. It is under the control of the trustees of Dartmouth College. Courses of the third and fourth year were discontinued in 1914. The faculty consists of 21 professors and 13 instructors, a total of 34. Three years of collegiate work are required for admission. An accelerated program has been adopted admitting a freshman class approximately every nine months or eight months of actual teaching. Candidates for the A.B. degree in Dartmouth College may substitute the work of the first year in medicine for that of the senior year in the academic department. The tuition is $450 for each year. The registration for 1941-1942 was 46. The present session began May 25, 1942 and will end Feb. 13, 1943. The subsequent session begins February 14, 1943. The Dean is John P. Bowler, M.D.

NORTH CAROLINA

Chapel Hill

UNIVERSITY OF NORTH CAROLINA SCHOOL OF MEDICINE.—Organized in 1890. Until 1902 this school gave only the work of the first two years, when the course was extended to four years by the establishment of a department in Raleigh. The first class graduated in 1903. A class was graduated each subsequent year, including 1910, when the clinical department at Raleigh was discontinued. Coeducational since 1914. A minimum of three years of college work is required for admission. Certificates are awarded on the completion of two years' work in medicine. The faculty is composed of 20 professors and 13 instructors, a total of 33. The fees for each year are $300 for residents; for nonresidents an additional fee of $100. The registration for 1941-1942 was 86. The school has gone on the accelerated schedule for the duration of the war. The 1942 session began June 15, and new sessions will begin approximately every nine months. The 1943 session will begin March 15, 1943. The Dean is W. Reece Berryhill, M.D.

Winston-Salem

BOWMAN GRAY SCHOOL OF MEDICINE OF WAKE FOREST COLLEGE, WINSTON-SALEM, N. C.—Organized in 1902 by Wake Forest College. Prior to 1941 it was located on the campus of Wake Forest College where it was known as the Wake Forest College School of Medical Sciences, offering only the first two years. During the next session, instruction will be offered to freshmen, sophomores and juniors. Instruction covering the complete four years will follow one session later. Ninety semester hours of college work are required for admission. The B.S. degree is given after the completion of the first year to those not already holding that degree. An accelerated program has been adopted involving the admittance of a freshman class approximately every nine months. The faculty numbers 55 full-time professors, assistant professors, and instructors; and 58 part-time clinical professors, assistant professors, instructors and assistants, making a total of 113. Tuition for each academic years is $450. Registration for the year 1941-1942 was 73. The present session began June 29, 1942 and will end March 18, 1943. The subsequent sessions begin March 23, 1943. The Dean is C. C. Carpenter, M.D.

NORTH DAKOTA

Grand Forks

UNIVERSITY OF NORTH DAKOTA SCHOOL OF MEDICINE.—Organized in 1905. Offers only the first two years of the medical course. Coeducational since organization. Three years' work in a college of liberal arts is required for admission. The B.S. degree in combined arts-medical course is conferred at the end of the second year. The faculty consists of 7 professors and 8 instructors, a total of 15. The fees are $113, each year for resident students and $198 for nonresidents. The registration for 1941-1942 was 53. The next session begins Sept. 28, 1942 and ends May 24, 1943. The Dean is H. E. French, M.D.

SOUTH DAKOTA

Vermillion

UNIVERSITY OF SOUTH DAKOTA SCHOOL OF MEDICAL SCIENCES.—Organized in 1907 as the University of South Dakota School of Medicine. Present title in 1937. Coeducational since organization. Offers only the first two years of the medical course. Three years' work in a college of liberal arts is required for admission. Students who complete the third year of premedical work in the College of Arts and Sciences at the University of South Dakota may apply the work of the first year of medicine to the A.B. degree. The B.S. degree is conferred at the end of the second year on those students who do not hold a combination (Arts and Sciences and Medicine Course) A.B. degree. The faculty numbers 18. An accelerated program has been adopted involving the admittance of a class approximately every nine months. The tuition is $150 each year for residents and $250 for nonresidents. The registration for 1941-1942 was 40. The present session began June 15, 1942 and will end Feb. 27, 1943. The subsequent session will begin March 8, 1943. The Dean is Joseph C. Ohlmacher, M.D.

UTAH

Salt Lake City

UNIVERSITY OF UTAH SCHOOL OF MEDICINE, University Street.—Organized in 1906. Coeducational since organization. Gives only first two years of medical course. An accelerated program has been adopted involving the admittance of a class every nine months. Three years of collegiate work are required for admission. The medical faculty consists of 11 professors, 1 instructor, 21 lecturers and demonstrators, and 5 fellows, assistants, and technicians, a total of 38. The fees for each year are $229. There is a nonresident fee of $75 each year. The registration for 1941-1942 was 66. The present session began June 29, 1942, and ends March 20, 1943. The subsequent session begins March 20, 1943. The Acting Dean is C. B. Freudenberger, M.D.

WEST VIRGINIA

Morgantown

WEST VIRGINIA UNIVERSITY SCHOOL OF MEDICINE.—Organized in 1902, gives the first two years of the medical course. Coeducational since organization. Three years of collegiate work are required for admission. The B.S. degree in medicine is conferred at the end of the second year. An accelerated program has been adopted involving the admittance of a class every nine months. Faculty numbers 24. Fees for residents of the state are, respectively, $255 and $265; nonresidents, $150 additional each year. The registration for 1941-1942 was 51. The present session began June 1 and will end March 17, 1943. The subsequent session begins March 22, 1943. The Dean is Edward J. Van Liere, M.D.

CANADA

Saskatchewan

UNIVERSITY OF SASKATCHEWAN SCHOOL OF MEDICAL SCIENCES, Saskatoon.—Organized in 1926. Coeducational. Offers the first two years of the medical course. An accelerated program has been adopted. Two years of collegiate work are required for admission. The B.A. degree is conferred at the end of the second year. The medical faculty includes 7 professors and 4 lecturers and assistants, a total of 11. The fees are $150 for each year. The registration for 1941-1942 was 48. The next session begins September 21, 1942 for the first year and ends May 15, 1943. The second year begins June 1, 1942 and ends December 19, 1942. The Dean is W. S. Lindsay, M.B.

INTERNSHIPS, RESIDENCIES AND FELLOWSHIPS

(See Lists Pages 1311-1344)

The 732 hospitals approved for intern training in February 1942 offered a total of 7,228 internship appointments annually. These in relation to the number of medical graduates—5,275 in 1941—would indicate a shortage of nearly 2,000 interns, but actually in view of the availability of second year men the approved hospitals had only 927 unfilled positions at the time of reporting. The number of vacancies has since increased, however, because of the curtailment of many of the advanced training courses and the appointment of additional interns in some hospitals to compensate for the lack of residents. In this connection it would seem particularly essential that all hospitals cooperate in maintaining an equitable distribution of interns by limiting their appointments to actual minimum needs. As a general rule the ratio of house officers to patients should not exceed one intern to six hundred annual admissions.

INCREASED PRODUCTION OF INTERNS

The present shortage of interns has a compensatory factor in the accelerated program of undergraduate training now adopted by most of the approved medical schools. Thus within three years there will be four graduating classes available totaling 21,029 students, as indicated previously in the section on undergraduate education. The first impact of this program will be felt in March 1943, when approximately 4,180 graduates will be ready to begin their intern service three months ahead of the usual date. Since the previous group will not have completed its service until July, there will be an overlapping of assignments for three months unless the older interns can be advanced to senior positions or be assigned to affiliate services in other hospitals that are short of house officers. If the affiliate plan is adopted, the original hospital should maintain supervision and be responsible for the entire educational period; otherwise it would not be in position to offer an internship certificate covering the last three months of training.

CHANGES IN INTERNSHIPS

The Council on Medical Education and Hospitals and the Association of American Medical Colleges have both recommended that internships should not be reduced below twelve months. The essential character of the intern service has likewise been recognized by the Army, Navy and Selective Service, which have made provisions whereby medical students may be deferred from active military duty until they have completed a year of hospital training. The individual hospitals, however, are confronted with the problem of integrating the one year internship with the accelerated medical curriculum under which a new class graduates every nine months. That intern services are rapidly being modified to coincide with the change in graduation dates is apparent from reports received in July 1942 indicating that 544 hospitals have recently readjusted their appointment schedule. At the same time there has been a reduction in the number of long term assignments, as evidenced by the fact that 711 hospitals are now offering one year internships as compared with 608 last February. Five have scheduled an eighteen months service, 9 a two year internship, and 14 a combination of assignments varying from twelve to twenty-four months. The corresponding figures at the beginning of the year were 17, 71 and 36. Of the hospitals currently approved 687 offer a rotating service, 12 have mixed internships and 19 provide straight assignments, while 21 have more than one type. Previous reports were 660, 27, 18 and 27 respectively. The list of approved internships published in this issue contains in addition to the clinical data up to date information concerning the number of interns required annually, type of internship, length of service, date of appointment, beginning of service and monthly stipend. The approved hospitals now total 739, the approved internships 8,349.

NECROPSY PERFORMANCE

The necropsy rate has long been considered an index of the scientific attitude of the medical staff and the progressiveness of the hospital's educational service. It is of interest to note, therefore, that in 1941 the hospitals approved for intern training reported 211,935 deaths and 82,587 necropsies, an average ratio of 38.97 per cent. Of 727 hospitals reporting, 42 attained the highly commendable rate of 70 per cent or over, 121 had 50-69 per cent, 290 were in the 30-49 per cent group and 262 had 15-29 per cent, whereas 12 were below the minimum requirement of 15 per cent. In the accompanying table on Highest Necropsy Rates are

Highest Necropsy Rates in Approved Internship Hospitals—1941

		Control	Percentage
1.	U. S. Naval Hospital, Great Lakes, Ill.	Navy	100
2.	William Beaumont General Hospital, El Paso, Texas	Army	95.3
3.	Station Hospital (Fort Sam Houston), San Antonio	Army	92.8
4.	Research and Educational Hospitals, Chicago	State	91.2
5.	Colorado General Hospital, Denver	State	90.9
6.	Hospital of the University of Pennsylvania, Philadelphia	Non-Profit Ass'n	89.9
7.	Trinity Hospital, Minot, N. D.	Church	88.2
8.	University of California Hospital, San Francisco	State	88.7
9.	Walter Reed General Hospital, Washington, D. C.	Army	86.4
10.	U. S. Naval Hospital, San Diego	Navy	84.8
11.	University of Nebraska Hospital, Omaha	State	84.2
12.	Mary Hitchcock Memorial Hospital, Hanover, N. H.	Non-Profit Ass'n	84.0
13.	Beverly Hospital, Beverly, Mass.	Non-Profit Ass'n	82.9
14.	U. S. Marine Hospital, Chicago	U.S.P.H.S.	81.8
15.	University of Chicago Clinics, Chicago	Non-Profit Ass'n	81.3
16.	Evanston Hospital, Evanston, Ill.	Non-Profit Ass'n	80.0
17.	Presbyterian Hospital, Philadelphia	Church	79.7
18.	Columbus Hospital, Chicago	Church	79.4
19.	U. S. Marine Hospital, Seattle	U.S.P.H.S.	78.9
20.	Letterman General Hospital, San Francisco	Army	78.7
21.	Wesley Memorial Hospital, Chicago	Church	78.6
22.	U. S. Naval Hospital, Washington, D. C.	Navy	77.8
23.	U. S. Naval Hospital, Bremerton, Wash.	Navy	77.8
24.	St. Elizabeth's Hospital, Washington, D. C.	U.S.P.H.S.	77.6
25.	U. S. Marine Hospital, San Francisco	U.S.P.H.S.	77.5
26.	Santa Fe Coast Lines Hospital, Los Angeles	Non-Profit Ass'n	76.6
27.	U. S. Naval Hospital, Mare Island, Calif.	Navy	75.9
28.	Massachusetts Memorial Hospital, Boston	Non-Profit Ass'n	75.9
29.	Queens General Hospital, Jamaica, N. Y.	City	75.2
30.	Fitzgerald-Mercy Hospital, Darby, Pa.	Church	75.2
31.	Passavant Memorial Hospital, Chicago	Non-Profit Ass'n	74.6
32.	Kansas City General Hospital, Kansas City, Mo.	City	74.1
33.	Johns Hopkins Hospital, Baltimore	Non-Profit Ass'n	73.9
34.	St. Barnabas Hospital, Minneapolis	Non-Profit Ass'n	73.7
35.	St. Luke's Hospital, Kansas City, Mo.	Church	73.7
36.	State of Wisconsin General Hospital, Madison	State	72.3
37.	St. Mary's Hospital, Duluth	Church	72.2
38.	University of Kansas Hospitals, Kansas City, Kan.	State	71.7
39.	University Hospitals, Minneapolis	State	71.7
40.	Strong Memorial Hospital, Rochester	Non-Profit Ass'n	71.2
41.	St. Luke's Hospital, Duluth	Non-Profit Ass'n	71.0
42.	Lankenau Hospital, Philadelphia	Non-Profit Ass'n	70.4

shown the hospitals in which postmortem examinations exceeded 70 per cent of the fatalities. This achievement not only serves to improve the quality of educational service in individual hospitals but helps to stimulate others to greater effort. It is particularly encouraging to note that small as well as large institutions are included and that private and public hospitals are about equally represented.

Classification of Approved Residencies and Fellowships—1942

Specialty	Residencies	Asst. Residencies	Fellowships	Total	No. of Hospitals
Anesthesiology	84	30	10	124	45
Cardiology	5	1	3	9	6
Communicable Diseases	43	7	..	50	18
Dermatology and Syphilology	34	22	22	78	34
Epilepsy	1	..	..	1	1
Fractures	5	3	..	8	4
Malignant Diseases	48	15	14	77	17
Medicine	351	358	138	847	221
Mixed	133	15	..	148	64
Neurology	28	32	5	65	28
Neurosurgery	23	10	12	45	24
Obstetrics and/or Gynecology	253	227	12	492	165
Ophthalmology and/or Otolaryngology	286	124	24	434	119
Orthopedic Surgery	115	59	25	199	80
Pathology	221	84	45	350	86
Pediatrics	169	209	22	400	120
Physical Therapy	2	..	..	2	3
Plastic Surgery	3	2	..	5	4
Psychiatry	329	71	37	437	128
Radiology	158	80	62	300	133
Surgery	415	480	83	978	228
Thoracic Surgery	21	8	11	40	20
Traumatic Surgery	3	1	..	4	2
Tuberculosis	214	51	4	269	90
Urology	66	49	10	125	72
Totals	3,010	1,938	539	5,487	*

* Number of hospitals approved for Residencies and Fellowships 602.

RESIDENCIES AND FELLOWSHIPS

The first list of approved residencies appeared in 1927, although special hospital assignments had previously been included in the intern list officially established by the Council in 1914. Each year detailed information is included in the Educational Number of THE JOURNAL concerning the number and types of residencies, the number of inpatients in each service, outpatient visits, deaths, necropsies, number of residents, assistant residents, and fellows, and the initial monthly stipend. The present list offers similar data regarding the various residencies and fellowships in the 662 hospitals approved by the Council. In the table showing classification of services there are 3,010 residencies listed, 1,938 assistant residencies and 539 fellowships, a total of 5,487.

Those figures are based chiefly on information received in January 1942 and therefore represent the number of residencies and fellowships ordinarily available under normal conditions. Many of the services have since been curtailed because of military requirements, yet there is every indication that the present educational structure will be maintained in such a manner as to be able to meet both current and future residency needs. The Council will continue to gather information regarding educational services in hospitals in order that accurate and up to date information may be regularly available to the medical profession, governmental agencies and other interested groups.

OPPORTUNITIES FOR LATIN-AMERICAN PHYSICIANS

A program of graduate training has recently been formulated by the W. K. Kellogg Foundation whereby twenty-five carefully selected physicians of the Latin-American countries will be brought to the leading ophthalmologic institutions of the United States for a minimum of one year's training.

This program of graduate instruction in ophthalmology will be carried on with the cooperation of the Division of Cultural Relations of the Department of State which has previously made arrangements whereby selected medical graduates of Central and South American countries may secure an opportunity for intern training in approved hospitals in the United States. These opportunities for interns and graduate students are clearly indicative of continued progress in Pan American relationships in the field of medical education.

ESSENTIALS OF AN APPROVED INTERNSHIP

(Revised June 1942)

I. Introduction

1. The primary function of a hospital is to provide facilities where the sick and injured may be given scientific medical care.

2. The operation of a well organized, effective program for the training of interns enhances the quality of care rendered to the sick and in nowise conflicts with the chief purpose for which the hospital is maintained.

3. An important purpose of the internship is to supplement the undergraduate medical course by a well rounded experience of closely supervised clinical practice in diagnosis and therapy.

4. Hospitals which are approved for the training of interns accept a serious responsibility to their interns and to the communities in which they may later practice.

5. The internship is one of the most important phases of medical education. Internships designed without a well supervised educational program, or arranged merely to provide hospitals with resident personnel to relieve visiting physicians of tasks which they do not wish to perform, cannot be approved.

II. The Internship

1. BASIS OF THE INTERNSHIP.—The internship is a form of apprenticeship. The intern assists in the care of patients and receives in return instruction from the hospital staff in the clinical and laboratory aspects of his profession.

2. LENGTH OF INTERNSHIP.—An internship should be of not less than twelve months' duration. Longer periods of service are desirable because they permit a more satisfactory educational program and allow the intern sufficient time in which to be trained adequately to assume increasing responsibility in various fields of medicine.

3. TYPES OF INTERNSHIP.—The Council approves "rotating," "mixed" and "straight" internships.

A "rotating" internship is defined as one which provides supervised experience in internal medicine, surgery, pediatrics, obstetrics and their related subspecialties, together with experience in laboratory and radiologic diagnosis.

A "mixed" internship is defined as one which provides supervised experience in two or more, but not in all, of the clinical divisions named.

A "straight" internship is defined as one which provides supervised experience in a single department, although it may include limited opportunity for work in a related subspecialty. Straight internships are now approved in internal medicine, surgery, pediatrics, obstetrics (with or without gynecology) and pathology.

In rotating and mixed internships of a year's duration the time allotted to internal medicine should equal or exceed the time given to any other service. Not more than six months' time in a year's rotating or mixed internship should be devoted to any one branch of the service, including its related specialties. Too frequent a rotation of assignments in such intern-

ships is undesirable. Arrangements should be made so that each intern shall devote at least two consecutive months respectively to internal medicine and to surgery.

III. Hospitals Eligible for Approved Internships

The experience of the Council indicates that the requirements for an approved internship can be met only in a general hospital registered by the American Medical Association, admitting at least 2,500 patients or more per year, having an average daily census of at least 85 patients, exclusive of the newborn and providing a sufficient number and variety of patients in the several branches of medicine in which it undertakes to train interns. For the purpose of this section, patients who are not available to the interns for clinical study are not included.

IV. The Hospital Staff

1. THE STAFF.—The staff, both visiting and intern, should be composed of physicians who are graduates of medical schools acceptable to the Council. The visiting staff should be composed of physicians (*a*) who are of unquestioned professional and moral integrity, (*b*) who are proficient in the fields of practice to which they devote themselves, (*c*) who give personal attention to the patients under their charge and (*d*) who pledge themselves, both individually and as a group, to provide ample instruction to the intern staff and to cooperate in their work.

V. Clinical Records

1. HISTORIES.—Adequate records should be maintained. The attending physician or surgeon should be directly responsible for the accuracy and completeness of clinical records concerning all patients under his care.

2. ENDORSEMENT OF RECORDS.—All case records should show by signature the names of the persons who have written them or their individual parts. Orders for treatment or for special diagnostic studies and progress notes should be signed by the person who writes them. Case histories and physical examinations completed by interns should give evidence of having been verified by the attending physician.

3. FILING AND INDEXING RECORDS.—A competent medical record librarian should be in charge of the filing and indexing of records. To be of educational value, all case records should be readily available for special study or for reference work. When a patient is readmitted to the hospital, all previous records of his case should be obtainable without undue loss of time. Besides the usual indexes of patients by name and number, there should be an index arranged according to primary and secondary diagnoses; all surgical procedures should be listed, and the names of physicians who refer patients to the hospital should also be recorded. Statistics concerning the hospital's clinical work should be compiled monthly and should be available at all times to the medical staff. An analysis of these figures should be included in the annual report and should be classified by departments, i. e. internal medicine, surgery, obstetrics, pediatrics (excluding the newborn), gynecology, ophthalmology, otolaryngology and so on, presenting for each department at least the following data concerning private and ward services:

Number of patients admitted or discharged.
Number of hospital days of care or average daily census.
Deaths and necropsies.
Surgical procedures.

VI. Laboratories

1. EQUIPMENT.—There should be clinical and pathologic laboratories in the hospital, under competent direction. The laboratory or laboratories should be equipped and staffed to perform ordinary routine tests, including bacteriologic, serologic, chemical, basal metabolic and tissue examination.

2. THE PATHOLOGIST.—The pathologist should hold the degree of doctor of medicine from an approved medical school and should have qualifications in pathology acceptable to the Council. He should give to the hospital sufficient time to enable him (*a*) to supervise adequately the work done in the main pathologic laboratory of the hospital and in its branch laboratories if any, (*b*) to examine or supervise the examination of all tissues removed in surgical operations and to furnish reports of their gross and microscopic findings, (*c*) to perform or supervise the performance of all necropsies conducted in the hospital and render a full report of the findings, (*d*) to assist in the teaching of interns, (*e*) to be available for consultation with members of the attending and intern staff meetings and conduct or participate in clinical-pathologic and departmental conferences.

3. NECROPSIES.—The hospital should provide proper facilities for the conduct of postmortem examinations in the presence of interns and staff. The necropsy rate has come to be recognized as an index of the scientific interest of the medical staff, and well performed postmortem examinations enable progressive physicians to improve their clinical ability. No hospital will be approved for intern training which does not maintain each year a record of necropsies performed in at least 15 per cent of its deaths exclusive of stillbirths and cases released to legal authorities. Beginning with the calendar year 1943, a minimum of thirty-six necropsies a year will also be required.

4. RECORDS.—A copy of each examination performed in the laboratory of pathology should be retained in the department in addition to the copy filed on the patient's clinical record. All these examination reports should be indexed by name, number and diagnosis. Slides for microscopic study of specimens removed at operation or by necropsy should also be filed in the laboratory.

VII. Radiology

1. EQUIPMENT.—This department should be equipped with suitable shockproof apparatus. The rooms provided for fluoroscopy and for viewing roentgenograms should be large enough to accommodate comfortably both interns and attending physicians during the examination of patients or interpretation of films.

2. THE RADIOLOGIST.—The radiologist should hold the degree of doctor of medicine from an approved medical school and should have qualifications in radiology acceptable to the Council. He should give to the hospital sufficient time to supervise adequately the technical work of the department, to perform or supervise fluoroscopic examinations, to interpret films, to consult with staff physicians, and to instruct the interns. He should also attend staff meetings and the meetings of his department.

3. RECORDS.—A copy of each examination report should be kept in the department in addition to the one filed in the patient's record. These reports and their original films should be filed and indexed by name, number and diagnosis.

VIII. Medical Library

There should be a medical library, in charge of a competent librarian, located where it is readily accessible to the interns and staff and containing a useful collection of recent editions of standard text and reference books and current files of not less than ten of the representative medical journals. Interns should be encouraged to use the library in connection with their clinical work and may properly be asked to report on current medical opinion concerning any special case at the bedside or to review current literature on any selected topic more formally at staff conferences or at journal club meetings that may be organized for the purpose of stimulating an interest in reading.

IX. Organization for Intern Training

1. The staff should be organized into departments or sections representing such specialties as internal medicine, surgery, pediatrics, obstetrics, pathology and radiology, in order to administer the professional services of the hospital and to supervise the program of intern training to best advantage. Overdepartmentalization should be avoided, although in large hospitals departmentalization may extend to include such other specialties as ophthalmology, otolaryngology, orthopedic surgery, urology, neurology and psychiatry. Each department or section should have a chairman or department head to serve for at least a year. He should be well qualified for this position by experience in his special field, should be responsible for the general conduct of the clinical work in his department and should help to formulate and execute the intern training plan to be carried out in his department. Frequent rotation of attending physicians in charge of the various services should be avoided. Assignments should be made so that the intern has opportunity

each day to meet his attending physician for the conduct of systematic ward rounds or clinics and for the study of the patients under his care. In hospitals where the management of private patients is part of the intern's responsibility, no intern should be called on to assist at any one time an unreasonable number of attending or visiting physicians.

2. CONFERENCES.—The staff, either as a whole or by departments, should conduct periodically and at least once a month, staff or departmental meetings in which the work of the various clinical or laboratory services is thoroughly analyzed. Interns should be expected to attend and to take an active part in these meetings. Each month there should be one or more clinical-pathologic conferences. In addition, there should be such departmental conferences as the current activities of the various departments may require. These conferences should be educational in nature and more than a perfunctory demonstration of interesting material. As has been suggested, the intern also should be encouraged to read medical literature in connection with his clinical work and may properly be asked to report formally on current medical opinion concerning any special case.

3. INTERN COMMITTEE.—There should be a committee of the staff, chosen from the chairmen of the several departments in the hospital, charged with the duty of organizing, supervising and evaluating the plan of intern instruction. The teaching obligations of individual staff members cannot be delegated to this committee but should be supervised by it.

X. Nature of the Intern's Duties

Each intern on duty in any clinical department should write or dictate the history, physical examination and his own diagnostic impression of all patients assigned to him. He should have laboratory work assigned to him of such nature as to give him familiarity with clinical laboratory methods and to develop in him competence in the use of all those which the average physician may be called on to perform. The nonoperative treatment of each patient should, in the main, be his responsibility under critical guidance by the visiting physician.

The intern's record should be checked within twenty-four hours by a competent supervising physician, calling attention to errors in observation and adding supplementary notes containing any relevant data which the intern may have omitted. If the intern's record is acceptable, the attending physician should countersign and thus approve it. The intern should enter notes of progress on the record, describing the patient's clinical course from time to time and make sure that all treatments or special diagnostic studies are correctly recorded. When a patient is discharged, the intern should write a concluding note which describes the final diagnosis and the patient's condition as he leaves the hospital. This should be countersigned by the attending physician.

XI. Teaching Program

1. BEDSIDE TEACHING.—The most important phase of intern instruction consists in well conducted teaching at the bedside. By this is meant systematic instruction of the intern by the attending physician with an ample discussion of the history, the clinical and laboratory findings, the diagnosis and the treatment of each patient. To conduct such teaching properly is the duty of the attending physician in direct charge of the patients assigned to the intern. It cannot be delegated to others, though it may be supplemented by supervision of the intern's work by junior staff members or resident physicians. Duties which have no educational value should be avoided as far as possible.

2. ASSIGNMENT OF CASES.—The teaching program should provide ample time for the intern to study and give thorough care to all patients assigned to him. An excessive number of patients is not conducive to careful work; indeed, undue pressure of routine tasks in a hospital may lead an intern to form habits which are undesirable and even harmful. For each intern assigned to a major service, such as internal medicine, surgery, obstetrics or certain specialties, such as neurology, an admission rate averaging not more than two patients a day is desirable.

3. INTERNAL MEDICINE.—This department should afford each intern an adequate amount of instruction and experience in general medicine and in such special medical technics as transfusion, intravenous and other parenteral therapy, and paracentesis. Preferably there should be facilities for the study of patients with tuberculosis, and with contagious, nervous and mental diseases. Each intern should receive careful instruction in modern diet therapy with technical assistance from trained dietitians. The social aspects of medicine should also receive proper emphasis.

4. SURGERY.—Surgical training should be planned to emphasize diagnosis and preoperative and postoperative treatment of surgical cases rather than skill in operative technic. Thus the intern's work in surgery should be rather that of an assistant than of an operator. The dressing of surgical wounds should be regarded as an important part of his experience, thus giving him a particularly valuable opportunity to observe carefully the immediate effects of surgical procedures and their treatment. He should obtain instruction and experience in administration of various types of anesthetics under the supervision of a trained anesthetist.

5. OBSTETRICS.—The intern should obtain training and experience by delivering under supervision at least 10 patients. At other deliveries he should act as an assistant, not merely as an anesthetist.

6. PATHOLOGY.—The intern should receive experience in clinical laboratory work to perfect his skill in routine laboratory procedures. He should also receive instruction from the pathologist in the procedures of pathologic diagnosis. He should attend and, when possible, assist at necropsies, receiving instruction in technic and in pathologic interpretation. He should be required to be familiar with the pathologic studies of surgical specimens and necropsy material which concern his own patients. No other assignment should be permitted to interfere with his attendance at the postmortem examination of any case which has been under his care. Whenever possible, he should assist in the preparation and presentation of the clinical-pathologic conference when cases assigned to him are being reviewed.

7. OUTPATIENT DEPARTMENT.—It is desirable that each intern should have supervised experience in outpatient work under circumstances comparable to the office practice of medicine. Outpatient clinics to which interns are assigned should be operated in close affiliation with corresponding services in the hospital, thus encouraging careful follow-up work and observation of patients over a long period of time.

XII. Miscellaneous

1. RECORD OF INTERNS' WORK.—Certain state medical examining boards, medical schools and other agencies may desire detailed information regarding the interns' training, and therefore it is suggested that hospitals keep a record of each intern's work. Such information may be supplied to the superintendent or record office by the intern himself on special forms where space is provided for data such as the period of time covered, the service, the number of patients admitted on service, the number of histories and physical examinations completed by the intern, the number of anesthetics given by him, the number of operations performed by him and the number in which he has assisted, the number of deliveries conducted by him and the number in which he has assisted, the number of necropsies attended, the hours spent in the laboratory, and the number of lectures, clinics and conferences attended.

2. RULES REGARDING INTERNS.—The hospital should supply each intern with written or printed rules defining his duties and privileges.

3. INTERNS' LIVING QUARTERS.—The hospital should provide for the intern comfortable living quarters, healthful food and suitable recreational opportunities.

4. INTERNS' HEALTH.—The hospital should be responsible for the interns' health, at least to the extent of providing at the beginning of each intern's service a careful physical examination, including a roentgenogram of the chest and immunization against communicable diseases. There should be at all times a readily accessible consultation service for interns with some member of the staff definitely assigned to this work. Periodic

x-ray examination of each intern's chest at six month intervals during his term of service is desirable.

5. RELATIONSHIP BETWEEN HOSPITAL AND INTERN. — To avoid misunderstanding, it is desirable that each intern at the time of his appointment should enter into a formal agreement with the hospital defining mutual obligations. Such agreement should be honorably fulfilled by both parties. The breaking of it by either a hospital or an intern is not condoned by the Council. Whenever complaint is made of a breach of agreement it is the policy of the Council to ask each of the parties to submit an explanatory statement. Such statements become a part of the physician's and the hospital's record.

XIII. Admission to the Approved List

1. APPLICATION FOR APPROVAL.—Hospitals that desire to be accredited for intern training should apply to the Council on Medical Education and Hospitals of the American Medical Association, 535 North Dearborn Street, Chicago. For this purpose forms in duplicate will be supplied on request. They should be filled out with care by the superintendent or by some member of the staff who is familiar with the hospital's intern program, and one copy should be returned to the Council.

2. Approval for the training of interns is granted for the current year only and is subject to renewal annually. When conditions warrant it, approval may be withdrawn at any time.

CONTINUATION STUDY FOR PRACTICING PHYSICIANS IN THE UNITED STATES, 1941-1942

The need for adequate clinical facilities where physicians who do not limit their practice to a specialty may find ample opportunity to learn by personal examination of patients and by conduct of essential laboratory tests has long been recognized. Since 1937 the Council on Medical Education and Hospitals has been actively engaged in the collection of information available and programs in effect throughout the country for the education of practicing physicians. A review of the developments and of the accomplishments in this phase of graduate medical education, based on a two year field study, were published in composite form by the Council in May 1940.[1] This publication further contains a review of the Association's interest in graduate medical education since 1913. A statistical report of the opportunities available, obtained by correspondence and questionnaire, have appeared annually in THE JOURNAL since 1938. The opportunities for continuation study have been reviewed again for the year 1941-1942 and are presented in this report.

RECENT DEVELOPMENTS IN STATE AND LOCAL PROGRAMS

Financed by the California Tuberculosis Association are special extension courses for individual physicians at the San Francisco Hospital, under the direction of the tuberculosis staffs of Stanford University and the University of California medical schools. Individual doctors receive their expenses and a per diem for a week's intensive specially arranged course.

Physicians of the District of Columbia, Maryland and Virginia participated in a postgraduate course in modern treatment of burns and the prevention and treatment of chemical casualties in modern warfare sponsored by the Medical Society of the District of Columbia in May 1942. No fee was charged. The course consisted of one hour lectures followed by a question period.

The Chicago Maternity Center holds a four months postgraduate course in obstetrics. The center trains forty physicians a year. Registration fee is $10. Entering dates are staggered.

A course in clinical discussions of war neuroses, designed for senior medical students, interns, house officers and others who may become medical officers in the armed forces, is planned by the Institute for Psychoanalysis, Chicago, and the Department of Neuropsychiatry of Michael Reese Hospital in October 1942. No registration fee.

The Iowa State Medical Society sponsors courses through its Speakers Bureau. They are general in nature and designed to refresh the general practitioner on certain fundamental aspects of various more common conditions. There is no limitation on the number of physicians attending. Recorded courses were initiated. This type of instruction was designed for the small audience of the more rural portions of the state. In addition, recorded lectures have been sent to county medical societies and hospital staffs which do not have scheduled courses.

The Committee on Postgraduate Education of the Maine Medical Association has formulated plans for inaugurating home study courses in medicine, surgery, pediatrics, obstetrics and gynecology. They are being patterned after similar courses which have been carried on by the American Academy of Ophthalmology and Otolaryngology during the past three years.

The Department of Public Health at the Massachusetts Institute of Technology is offering an accelerated program of public health training which began June 8, and on completion of the course, Feb. 6, 1943 a Master's degree will be awarded. These training programs are organized for public health engineers, health educators and public health laboratories, as well as for administrators.

Courses for physicians in the Kenny technic for the management of acute phases of poliomyelitis sponsored by the National Foundation for Infantile Paralysis were given during six six day periods at the University of Minnesota Center for Continuation Study.

Two series of meetings on obstetrics and one on pediatrics were conducted during the past fiscal year by the Maternal and Child Health Committee of the Montana State Medical Association, which serves as an advisory committee to the Division of Maternal and Child Health of the state board of health. A total of twelve centers with two sessions at each center, covering the southeastern, northwestern and southwestern areas, was reached during this period.

Postgraduate clinics held by visiting lecturers from out of the state were given at Duke University School of Medicine, Durham, N. C., on the emergencies of civilian and war medicine and surgery. Weekly postgraduate courses in obstetrics and pediatrics are given at Duke Hospital through the cooperation of the North Carolina State Board of Health, the University of North Carolina School of Public Health and the United States Children's Bureau. The courses are limited to six physicians, and no tuition is charged.

A series of four day intensive courses for teaching the medical aspects of chemical warfare were given

(Continued on page 1298)

1. Graduate Medical Education in the United States: I. Continuation Study for Practicing Physicians, 1937 to 1940, American Medical Association, 1940.

TABLE 1.—CONTINUATION COURSES FOR PRACTICING PHYSICIANS, 1941-1942

A. In Proximity to Their Homes

Location of Course	Sponsoring Agencies	Facilities for Graduate Programs	Director of Program	Title of Course	Duration of Course	Course Began	Type of Instruction	Instructors	Eligible to Enroll	Registration Fee and/or Tuition	Approximate Attendance (M.D.s only)	Additional Contributing Agencies and Funds
Home Study Courses												
(Chicago, Ill.)	American Academy of Ophthalmology & Otolaryngology	Public mails	Executive Secretary	Ophthalmology & Otolaryngology	9 months	Fall	Selected reading, quizzes	Selected texts	M.D.s who wish to specialize	$10	100	
(Boston, Mass.)	Massachusetts Medical Society, Massachusetts Department of Public Health	Public mails	Chairman, District Committee on Post Graduate Information	General	Varied	Spring	Reading, quizzes	Selected texts	M.D.s registered in Massachusetts	$5	Not stated	United States Public Health Service
(Albany, N. Y.)	Albany Medical College of New York, State Dept. of Health	Office, hospital, sanatorium, civic sanitary plants	Director, Extension Course	Public Health [6]	1 year	Arranged	Reading, monthly conferences, week in residence	In state; out of state	M.D.s registered in New York	$40	52	
Alabama												
22 centers (4 circuits)	Tulane U. of La. Dept. of Grad. Med., Med. Assn. of Ala., Ala. Dept. of Public Health	Local buildings	Director, Dept. of Graduate Medicine	Gynecology and Non-Operative Surgery	3 days	Monthly	Lectures, clinics, demonstrations, consultations	Medical school; out of state	Members of local medical assns.	$5	211	Commonwealth Fund of New York
Arizona												
23 centers	Arizona State Dept. of Health	Hospitals, clinics, individual offices	Director, Dept. of Maternal and Child Health	Pediatrics	2 weeks	Throughout the year	Lectures, clinics, consultant service	Medical school; out of state	M.D.s registered in Alabama	None	135	United States Children's Bureau
California												
6 centers	California State Board of Health	Local buildings	Chairman, Committee on Post-graduate Activities	Pediatrics, Syphilology and Dermatology	1-3 days	Winter	Lectures, symposiums, demonstrations, discussions	Medical school; in state	Members of county and district med. assns.	None	Not stated	
15 centers	California Tuberculosis Assn., California Medical Assn.	Hospitals	Executive Secretary	Diseases of the Chest	1 day	Requested throughout the year	Lectures, clinics	Medical school; in state	Members of county and district med. assns.	None	568	
Illinois												
Belleville	State Medical Societies of Illinois and Missouri	Hotel	Chairman, Post-Graduate Committees	General	1 day	Spring	Lectures	In state; out of state	Members of Ill. and Mo. med. assns.	None	Not stated	
2 centers	Illinois State Medical Society	Hospitals	Chairman, Post-Graduate Committee	Maternal Welfare	1 evening a month	Throughout the year	Discussions	Medical school; in state	Members of county medical societies	None	Undetermined	County Medical Societies
9 centers	Illinois State Medical Society	Hotels, schools	Chairman, Post-Graduate Committee	General Medicine and Surgery	1 day	Repeated 10 times	Conferences	Medical school; in state; out of state	Members of Ill. State Med. Assn.	None	1,200	Districts 1 to 9, Illinois
Indiana												
5 centers	Indiana University, Indiana State Board of Health	Medical school	Director, Post-graduate Education in Obstetrics	Obstetrics	1 evening a week for 5 weeks	Spring	Lectures, moving pictures, consultations, demonstrations	In state	M.D.s	None	150	
Iowa												
9 centers	Iowa State Department of Health, Iowa State Medical Society	Hospitals, public buildings	Chairman, Speakers Bureau	Industrial Medicine	1 day	Throughout the year	Lectures, demonstrations	In state	M.D.s, nurses, industrialists	None	1,200	United States Public Health Service
13 centers [1]	Iowa State Medical Society	Hospitals, hotels	Chairman, Speakers Bureau	Varied	1 evening	Throughout the year	Lectures, discussions	In state	M.D.s	$0-5	662	County Medical Societies
Kentucky												
Louisville	Children's Free Hospital	Hospital	Head of Pediatrics Dept.	Pediatrics	1 morning a week for 10 weeks	Spring-summer	Lectures, clinical demonstrations, discussions	In state	M.D.s	$5	20	
Massachusetts												
Boston	Mass. Dept. of Public Health, Harvard School of Public Health	Medical school, clinic	Sec., Executive Committee on Public Health	Child Health Services	1 day a week for 6 weeks	Spring	Lectures, clinics	Medical school; in state	M.D.s	None	16	

1. Ninety-five lectures in all were offered, of which twenty-one in three counties were recorded lectures.

Michigan											
13 centers	Mich. State Medical Society, Wayne U. College of Med., Mich. Dept. of Health	Local buildings	Chairman, Dept. of Postgraduate Medicine, University Hospital	Varied	1 day a week for 1 month	Spring, fall	Lectures, demonstrations, discussions	Medical school; in state; out of state	M.D.s	None	1,152	Rackham Fund
Mississippi											
10 centers	Dept. of Grad. Med., Tulane U. of La., Miss. State Med. Assn., Miss. State Board of Health	Medical school	Director, Dept. of Graduate Medicine	Internal Medicine, Surface and Bone and Joint Injuries and Diseases	2 days a month	Repeated 3 times	Lectures, clinics, demonstrations, consultations	Out of state	Members of the A.M.A.	$5	90	Commonwealth Fund of New York
Missouri											
2 centers	Missouri Tuberculosis Assn., Tuberculosis Committee of the Missouri State Medical Society	Local buildings	Executive Sec.	Pulmonary Tuberculosis	5 hours	Spring, fall	Symposium, discussions, lectures, demonstrations	In state; out of state	M.D.s	None	143	
Montana											
12 centers	Montana State Medical Assn., Montana State Board of Health	Hospitals	Chairman, Post-Graduate Education, Division of Maternal and Child Health	Obstetrics and Pediatrics	2 sessions	Repeated 12 times	Lectures, discussions, demonstrations, clinics	Out of state	M.D.s	None	135	
New Jersey											
2 centers	Medical Society of New Jersey, Rutgers University Extension Division	Local buildings	Officer in Charge, Bureau of Postgraduate Medicine	General	1 day a month for 6 months	Fall-spring	Lectures	Medical schools; out of state	M.D.s	$0-5	150	County Medical Societies
New York											
3 centers	Medical Society of the State of New York, New York State Dept. of Health	Medical schools, hospitals, laboratories, public buildings	Chairman, Council Committee on Public Health and Education	Dental Caries	1 session	Repeated throughout the year	Lectures, clinics, symposiums, demonstrations	Dental schools; in state	M.D.s, med. students, dentists	None	143	Division of Industrial Hygiene of the New York State Dept. of Labor, New York State Dental Society, colleges of medicine of New York state, local dental societies
26 centers				General	1-7 sessions	Repeated throughout the year	Lectures, clinics, symposiums, demonstrations	Medical schools; in state	M.D.s, med. students	None	1,540	Division of Industrial Hygiene of the New York State Dept. of Labor
10 centers				Maternal and Child Welfare, Industrial Health, Cancer	1 session	Repeated throughout the year	Lectures, clinics, symposiums, demonstrations	Medical schools; in state	M.D.s, med. students	None	1,207	Division of Industrial Hygiene of the New York State Dept. of Labor, colleges of medicine of New York state, regional medical societies
Ohio											
5 centers	Ohio State Medical Assn.	Local buildings	Chairman, Committee on Education	General	1 day	Repeated 5 times	Lectures	In state	Members of the Ohio State M.A.	None	442	County chairmen
Oklahoma											
46 centers	Oklahoma State Medical Assn.	Local buildings	Chairman, Postgraduate Comm.	Pediatrics and Internal Medicine	1 evening a week for 10 weeks	Repeated throughout the year	Clinics, lectures	In state	M.D.s	$6	1,000	Oklahoma State Health Dept., Commonwealth Fund of New York
Pennsylvania											
Philadelphia	Temple University School of Medicine	Medical school, hospital	Dean	Cardiology	1 afternoon a week for 4 weeks	Repeated throughout the year	Survey, practical exercises	Medical school	M.D.s	$25	10	
Rhode Island											
6 centers	Rhode Island Dept. of Health, Rhode Island Medical Society	Hospitals	Chief, Bureau of Child Hygiene	General	1 day	Repeated throughout the year	Discussions	In state	M.D.s	None	345	
Wisconsin											
Madison	University of Wisconsin Medical School	Medical school	Dean	Clinical Surgical Anatomy	1 day a week for 6 weeks	Repeated throughout the year	Lectures, clinics	Medical school	M.D.s	$25	8	
3 centers	State Medical Society of Wis.	Local buildings	Secretary	Varied	1 day	Spring	Lectures, conferences, clinics	In state	Members, State Med. Society	$5	350	State Board of Health

(Continued from page 1295)

by the University of Cincinnati College of Medicine. The first group which took the course were physicians from New England, New York and the Middle Atlantic states. Later courses were offered to physicians from other parts of the country.

Courses in internal medicine in five teaching centers in nine separate circuits in the state of Tennessee are offered. The course is sponsored by the Commonwealth Fund of New York, Tennessee State Medical Association, Tennessee State Department of Health, Vanderbilt University School of Medicine and the University of Tennessee College of Medicine. The course is open to all licensed physicians in the state, and one lecture a week is given in each center for a period of ten weeks. This is a two year program, which commenced in February 1941.

The Texas State Tuberculosis Sanatorium presented a series of lectures and clinical demonstrations on diseases of the chest for physicians of Texas. There were no fees charged, and the physician remained as a guest of the hospital for this two week course.

RECENT DEVELOPMENTS IN NATIONAL PROGRAMS

The American Academy of Ophthalmology and Otolaryngology sponsors two series of educational courses for their members. The first consists of three day lectures at the time of the annual meeting of the academy. The second course consists of a home study course. It is designed primarily for residents in these specialties but is open to any licensed physician. It is a home reading course accompanied by examination and covers nine months of the year.

The American College of Physicians continues to offer courses in special subjects for members of the college and for physicians preparing for certification by the American Board of Internal Medicine.

The annual Clinical Congress of the American College of Surgeons constitutes an important educational event for Fellows of the College and members of its Junior Candidate Group. During March the college held twenty-seven war sessions throughout the country which were open to the entire profession.

While the Commonwealth Fund of New York is not conducting directly any programs, it is giving considerable assistance in the field of postgraduate medical education.

From time to time the Division of Venereal Disease of the United States Public Health Service has sponsored a four week postgraduate course in clinical management and public health control of venereal diseases at the United States Public Health Service Medical Center, Hot Springs National Park, Ark.

Courses for medical officers of the Army on active duty are given repeatedly throughout the year.

The United States Department of Labor, Children's Bureau, Washington, D. C., continues to provide funds for the postgraduate education of practicing physicians.

CONTINUATION STUDY FOR PRACTICING PHYSICIANS, 1941-1942

Opportunities provided for practicing physicians during the fiscal year ended July 1, 1942 are outlined in tables 1-A, pages 1296-1297, 1-B, pages 1300-1305 and table 2, pages 1306-1310. Courses reported in table 1-A were of a peripatetic character in that instruction was offered to the practicing physician in a number of different places in or near his local community. Centers listed in table 1-B provide ample facilities for clinical instruction. In the first type of course the instructors usually do most of the traveling, while in the latter the physician desiring continuation study travels to the center where clinical teaching may be emphasized over longer periods. In table 2 are summarized graduate assemblies of less than five days and study courses.

ORGANIZATION AND ADMINISTRATION

Opportunities for continuing professional study for practicing physicians near their home communities held a prominent place in nineteen states. These programs reached a total of two hundred and forty-eight centers. Of thirty-six sponsoring agencies, committees on postgraduate education of state medical societies, independently or with the state departments of health or medical schools, supervised programs in fifteen states. State health departments were active participants in eleven states; the extension division of six universities, two state tuberculosis associations, a school of public health and a hospital also cooperated in bringing programs to the practitioner.

In centers where ample clinical facilities are available (table 1-B) graduate courses of five days to one year's duration were offered in three hundred and eighteen educational institutions or agencies located in sixty-nine centers in thirty-two states and the District of Columbia. Ninety-two agencies or combinations of agencies participated in the planning of programs. Courses were sponsored by six state agencies and given outside the state.

Graduate schools of medicine, or postgraduate divisions of institutions, played the most prominent part in offering courses of five or more days' duration. Thirty-four undergraduate medical schools have given such courses. Thirteen state medical societies independently or in collaboration with state health departments planned courses for physicians of the state. Twelve health departments made contributions. In ten instances hospitals were the agencies offering short periods of study. Other sponsors included state departments of public health, the American College of Physicians, the American College of Surgeons, the American Academy of Ophthalmology and Otolaryngology, Georgia Warm Springs Foundation, the Mayo Foundation, National Foundation for Infantile Paralysis, the United States Public Health Service, tuberculosis associations, as well as local, state, national and international agencies organized primarily for the purpose of providing graduate opportunities.

In medical school programs the deans were indicated as directing officers of more than half of the postgraduate courses. The head or a member of the department in which the study is offered often directed the course. Chairmen of postgraduate educational committees in universities and of medical societies, directors of departments of health and the chief of staff of several hospitals acted as administrators.

METHODS OF INSTRUCTION

Opportunities for instruction in pediatrics seemed to be among the courses most generally offered for physicians continuing professional study near their home. Such programs were available in ninety-nine centers in seven states. Programs covering the general subjects of medicine and surgery were offered in ten states.

Instruction was given once weekly at intervals of from ten weeks to six months, while one offered a three day course. Sessions of one or two days were most commonly the stated duration.

In addition to lectures and round table discussions, many of the courses for physicians in their own communities were planned to include clinics, symposiums,

demonstrations and conferences. The traveling faculties for these extramural courses were chosen mainly from within the state sponsoring the course. The faculties of medical schools provided instructors in fourteen instances. Three home study courses were offered.

The description of intensive courses gave evidence that clinical instruction was primarily featured. The study of general medical subjects, the specialties and subspecialties was offered in various combinations in three hundred and eighteen medical centers. In the specialty group, while courses in obstetrics and pediatrics were most commonly offered, many were offered in dermatology and syphilology, gynecology, ophthalmology, cardiology, orthopedic surgery, otolaryngology and psychiatry. Other special topics of study included allergy, anesthesia, fractures, chemotherapy, endocrinology, gastroscopy, hematology, plastic surgery, poliomyelitis, psychology, public health, radiology, tropical medicine and tuberculosis. Courses in preclinical subjects included anatomy, pathology and physiology. Intensive courses were also given in aviation medicine, emergency treatment of war casualties and varied civilian and military practice.

The duration of study in centers with clinical facilities varied from five days to one year. One hundred and fifty-five courses were completed within three weeks or less, while one hundred and thirty-five lasted from one to four months, and ten courses were offered for periods of five months to one year. Four were of a year's duration. In others the length of the course varied.

In only nine instances were the courses in centers with clinical facilities wholly didactic. Clinical instruction and practical experience included laboratory and operative demonstrations, symposiums, seminars, assignment of patients, case presentation, clinical pathologic and roentgen ray conferences, moving pictures, ward rounds, field trips and bedside teaching.

In addition to medical schools and hospitals, laboratories, outpatient departments, clinics and local health units cooperated by placing their facilities at the disposal of the students.

The faculties of the medical schools offering continuation courses were called on for assistance in instruction in two hundred and fifty-four courses. Additional instructors were specialists in their field, an equal number being chosen from within the state as from out of state.

REGISTRATION

The practicing physician was invited to twenty of the courses which had as their purpose the instruction of physicians practicing in or near the community in which the course was given. In nine others membership in the county or state medical society was a requirement. The number registered for any one course ranged from 8 to 1,540.

In the majority of courses featuring clinical instruction the M.D. degree was necessary for enrolment, although medical students were admitted to one course, while nurses, technicians, doctors of philosophy, sanitarians, engineers and public health workers registered in five specialized courses. M.D.'s reported attending this type of continuation course totaled 14,879. Two hundred and sixty-four courses had registrations of less than 40; in twenty-four the enrolment ranged from 41 to 75, in fifteen from 76 to 200 and in six over 201. In six instances the registration reached beyond 500. The greatest attendance at any one course was 3,100. For twenty courses the number registered was not obtained.

For seventeen of the itinerant continuation courses no charge to the physician was made. The fees for other courses averaged $5, although in two instances a fee of $25 was charged.

In continuation courses featuring clinical instruction of more than five days in one center the fees ranged from a registration fee of $5 to tuition of $1,000. In twenty-one no fees were charged the individual.

State medical societies made substantial contributions to all programs of continuation study. Likewise financial assistance was received from state departments of health, federal bureaus, medical schools, the Commonwealth Fund, Bingham Associates Fund, National Foundation for Infantile Paralysis, the Trudeau Foundation, Lillia Babbitt Hyde Foundation and others.

CLINICAL CONFERENCES, GRADUATE ASSEMBLIES AND STUDY COURSES

In twenty-eight states clinical conferences, graduate assemblies and study courses of less than five days were held during 1941-1942. These data are assembled in table 2, pages 1306-1310. Seventy-seven assemblies or short lecture courses held under the auspices of eighty-nine agencies either independently or in collaboration were reported. Fifteen state medical societies and twelve medical schools sponsored clinical conferences, assemblies and study courses. Seven tuberculosis associations and one heart association reported this type of study. Miscellaneous groups comprised the remainder. An especially appointed director of the clinics or chairman of the committee responsible was reported for most of the courses.

The majority of the large assemblies surveyed pertinent topics in general medicine and surgery. Scattered study courses sponsored by medical societies or agencies concentrating on certain fields included varied subjects, as chemotherapy, early clinical diagnosis of neoplastic diseases, pneumonia typing technic, antepartum care, medical aspects of gas warfare, problems of civil and military emergencies and sulfonamide therapy.

The assemblies were usually held in centers large enough to accommodate the registrants and with facilities for clinical and practical work and for scientific exhibits.

Of the seventy-seven courses, thirty were confined to didactic instruction. The remainder used the facilities of hospitals, medical schools, outpatient departments and laboratories to conduct clinics, demonstrations, clinical pathologic conferences and symposiums. Faculty members of medical schools took an active part in thirty-two of the courses. Instruction from other than faculties of medicine was evenly divided between physicians from the state and physicians from outside the state.

Practicing physicians were eligible for admission to all courses, but courses sponsored by three state medical societies was limited to members. Registration fees ranged from $2 to $25, but for the most part no fee was charged. The largest attendance recorded at any one assembly was 1,200. In a few instances no attendance was reported.

SUMMARY

In thirty-nine states some form of continuation study for practicing physicians was provided. In nine states, namely, Delaware, Idaho, Nevada, New Mexico, South Dakota, Utah, Washington, West Virginia and Wyoming no courses were reported. However, the state health departments of Arizona, Maine, Nevada, North Dakota, South Dakota, Utah and Washington sponsored courses outside the state.

(Continued on page 1310)

TABLE 1.—CONTINUATION COURSES FOR PRACTICING PHYSICIANS, 1941-1942

B. Where There Are Ample Facilities for Clinical Instruction—Five or More Days

Location of Course	Sponsoring Agencies	Facilities for Graduate Programs	Director of Program	Title of Course	Duration of Course	Course Began	Type of Instruction	Instructors	Eligible to Enroll	Registration Fee and/or Tuition	Approximate Attendance (M.D.s only)	Additional Contributing Agencies and Funds
Alabama												
Mobile	State of Ala. Dep't of Public Health	Hospital, clinic	Ass't Director Bureau of Prevention of Diseases	Syphilology and Other Venereal Diseases	5 days	Monthly	Lectures, clinics, seminar	In state	Venereal Disease Clinicians of Ala.	None	72	United States Public Health Service
Tuskegee Institute	John A. Andrew Memorial Hospital	Hospital	Medical Director	Medicine: Clinics for Negro Physicians	1 week	Spring	Lectures, clinics, demonstrations, discussions, conferences	Medical school; in state; out of state	Negro M.D.s	$5	153	
Arizona												
23 centers	Arizona State Dep't of Health	Hospitals, clinics, individual officers	Director, Maternal and Child Health	Pediatrics	2 weeks	Winter, spring	Lectures, clinics, consultant service	Medical school; out of state	M.D.s licensed in Arizona	None	135	United States Children's Bureau
Arkansas												
Hot Springs	United States Public Health Service	Medical Center	Medical Officer in Charge	Venereal Diseases	4 weeks	Spring, fall	Lectures, discussions	In state; out of state	M.D.s	None	65	
State Sanatorium	Arkansas Tuberculosis Sanatorium	Sanatorium	Superintendent	Pneumothorax	1 week	Weekly	Practical work, discussions staff meetings	Staff members	Members, Arkansas Medical Society	None	Not stated	
California												
Los Angeles	College of Medical Evangelists	Medical school	Chairman, Comm. on Postgraduate Education	Cardiology, Otolaryngology, Urology (3 courses)	20 hours-1 month	Winter	Lectures, clinics, demonstrations discussions	Medical school	M.D.s	$40-$100	27	
	Research Study Club of Los Angeles	Club, medical school	Secretary	Ophthalmology and Otolaryngology; Applied Anatomy and Cadaver Surgery of the Head and Neck (2 courses)	2 weeks	Winter	Lectures, clinics, discussions, practical work	Medical school; in state; out of state	M.D.s	$50-$100	200	University of California Medical School, College of Medical Evangelists
	U. of Southern California	Medical school	Ass't Dean	Cellular Physiology and Biophysics	4 months	Winter, summer	Lectures, investigations	Medical school	M.D.s	$32	10	
San Francisco	Arizona State Dep't of Health	Hospitals	Acting Head, Pediatrics Dept., U. of California Medical School	Preventive and Clinical Pediatrics	2 weeks	Winter	Lectures, demonstrations, seminars	Medical school; in state	M.D.s	None	2	
	California Tuberculosis Association	Hospital	Tuberculosis staffs of Stanford U. and U. of California Medical Schools	Tuberculosis	1 week	Throughout the year	Lectures, discussions, demonstrations	In state	M.D.s licensed in California	None	16	
	Stanford U. School of Medicine	Hospitals, clinics, laboratories	Committee of the Faculty	General	6 days	Fall	Ward rounds, conferences, clinics, demonstrations, lectures	Medical school, in state	M.D.s	$25	184	
	U. of California	Medical school	Director of Refresher Courses	Drug Therapy	5 days	Winter	Lectures, clinics, symposiums	Medical school	M.D.s	$20	97	
	U. of California Medical School; state health departments of California, Nevada, Utah and Arizona	Medical school	Associate Professor of Pediatrics, U. of California Medical School	Refresher Course in Pediatrics	1 or 2 weeks	Winter	Lectures, clinics, discussions	Medical school	M.D.s	None	13	
Colorado												
Denver	American College of Physicians	Medical school, hospitals	Executive Secretary	Tuberculosis	6 days	Spring	Lectures, clinics, discussions	Medical school	M.D.s	$20	20	
	State of Colo. Dep't of Public Health	Medical school, hospitals	Director, Div. of Maternal and Child Health	Obstetrics and Pediatrics	3 weeks	Fall	Lectures, demonstrations	In state	M.D.s licensed in Colorado	$10	20	
District of Columbia												
Washington	George Washington University 3 courses	Medical school, medical museum	Executive Officer	Aviation Ophthalmology, Aviation Medicine, Orthoptics, Ocular Surgery	5-6 days	Spring, Winter	Lectures, demonstrations	Medical school; in state; out of state; members of the Army Corps	M.D.s	$35-$100	205	
	Howard University	Medical school	Director, Postgraduate Course	Venereal Disease Control	3 months	Winter, spring	Lectures, clinics, discussions	Medical school	M.D.s	$20	17	United States Public Health Service

Florida											
Jacksonville	Florida Medical Association, Inc., Florida State Board of Health	Hospital	Chairman of the Committee	General	6 days	Summer	Lectures, slides	Medical school; in state; out of state	Negro and white M.D.s licensed in Florida	$5	132	
Georgia											
Warm Springs	Georgia Warm Springs Foundation	Foundation	Director, Graduate School of Physical Therapy	Poliomyelitis During the Acute and Convalescent Periods	1 week	Throughout the year	Lectures, clinics, discussions	In state	M.D.s, nurses, technicians	$25	40	
Illinois											
Chicago	American Academy of Ophthalmology and Otolaryngology	Hotel	Secretary for Instruction	Ophthalmology and Otolaryngology	5 days	Fall	Lectures	In state; out of state	Members of the Academy	Not stated	50	
	Americal College of Physicians	Medical school, hospital	Executive Secretary	Gastroenterology	2 weeks	Spring	Lectures, clinics, demonstrations, discussions	In state; out of state	M.D.s	$40	72	
	The Chicago Maternity Center	Hospital	Medical Director	Practical Obstetrics	4 months	Throughout the year	Practical work	In state	M.D.s	$10	40	
	The Children's Mem. Hospital	Hospital, clinic	Chief of Staff	Pediatries and Allied Specialties	6 days	Fall	Lectures, clinics	Staff; in state	M.D.s	$100	10	
	Ill. State Dep't of Public Health, U. of Chicago	Medical school	Chief, Division of Maternal and Child Hygiene	Obstetrics	4 weeks	Repeated 10 times	Lectures, demonstrations	Medical school; in state	M.D.s	$25	26	
	Ill. State Dep't of Public Health, State Med. Soc., U. of Illinois School of Medicine	Medical school, hospital	Chief, Division of Maternal and Child Hygiene	Obstetrics and Pediatrics	2 weeks	Arranged	Observation	Medical school; in state	M.D.s licensed in Illinois	$10	25	
	Ill. State Dep't of Public Health, State Med. Soc., U. of Illinois School of Medicine, Cook County Hospital	Medical school, hospital	Chief, Division of Maternal and Child Hygiene	Obstetrics and Pediatrics	1 week	Summer	Lectures, clinics, demonstrations	Medical school; in state	M.D.s licensed in Illinois	$10	42	
	Inter-State Postgraduate Medical Assoc., Illinois State Med. Assoc.	Hotel, hospitals	Managing Director	Varied war and civilian practice subjects	5 days	Fall	Lectures, discussions	In state; out of state	Members of county medical societies	$5	3,000	Cook County Medical Society
	Loyola University	Medical school	Dean	Public Health	1 semester or more	Fall	Lectures, discussions, field trips	Medical school	M.D.s, Sanitarians, teachers	$10-$125	4	
	Michael Reese Hospital	Hospital	Chief of Staff	Electrocardiography	2 weeks	Fall	Lectures, clinics, laboratory work	In state	M.D.s	$100	16	
					4 months	Winter, spring	Lectures, clinics, discussions, demonstrations	In state	M.D.s	$25	23	
				Interpretation and Use, Rorshack Method of Psychological Testing	5 days	Summer	Lectures, demonstrations, practical work	In state	M.D.s and Ph.D.s	$15	8	
	Northwestern University	Medical school	Professor of Ophthalmology	Ophthalmology	9 months	Fall	Lectures, clinics, demonstrations, discussions, observation	Medical school	M.D.s	$400	8	
	U. of Chicago, Illinois Dep't of Public Health	Medical school	Dean	Gastroscopy	2 weeks, 3 months	Throughout the year	Lectures, clinics, discussions, demonstrations	Medical school	M.D.s	$100-$150	68	
	U. of Illinois	Medical school	Ass't to the Dean	Anatomy, Child Psychology, Ophthalmology, Otolaryngology (4 courses)	1 week-1 year	Throughout the year	Lectures, clinics	Medical school	M.D.s	$75 per semester	53	
Indiana											
Indianapolis	Indiana U.	Medical school	Chairman, Postgraduate Education Committee	Obstetrics, Otolaryngology (2 courses)	2 weeks	Fall, winter, spring	Lectures, clinics, demonstrations, discussions	Medical school	M.D.s, specialists	$10, $150	42	
Iowa											
Iowa City	State University	Medical school	Assoc. Professor in Obstetrics and Gynecology	Obstetrics	6 days	Biweekly	Clinics, demonstrations, discussions, ward rounds, observation	Medical school	M.D.s	None	45	
Kansas											
Emporia	Kansas Medical Society	Hospitals	Chairman, Comm. on Study of Heart Disease	Cardiology	5 days	Fall	Lectures, clinics, discussions	Medical school; out of state	M.D.s	$15	29	

TABLE 1.—CONTINUATION COURSES FOR PRACTICING PHYSICIANS, 1941-1942—Continued

B. Where There are Ample Facilities for Clinical Instruction—Five or More Days

Location of Course	Sponsoring Agencies	Facilities for Graduate Programs	Director of Program	Title of Course	Duration of Course	Course Began	Type of Instruction	Instructors	Eligible to Enroll	Registration Fee and/or Tuition	Approximate Attendance (M.D.s only)	Additional Contributing Agencies and Funds
Louisiana												
New Orleans	New Orleans Graduate Medical Assembly	Not stated	Secretary	Medicine	5 days	Spring	Lectures, clinics, demonstrations, discussions	In state; out of state	M.D.s	$10	Not stated	
	Louisiana State Dep't of Health, Louisiana State Medical Society	Medical center, hospital, clinics	State Health Officer	Obstetrics	2 weeks	Quarterly	Lectures, demonstrations, discussions	Medical school; in state	M.D.s licensed in Louisiana	None	25	
	Tulane U. of Louisiana	Medical school, hospitals	Director, Dep't Postgraduate Medicine	Various subjects (6 courses)	4 weeks-4½ months	Fall, winter, spring	Lectures, clinics, demonstrations, conferences, ward rounds	Medical school	M.D.s	$150	178	
Maryland												
Baltimore	American College of Physicians	Medical school	Executive Secretary	Chemotherapy, Hematology, Nutrition, Endocrinology	2 weeks	Winter	Lectures, clinics, demonstrations, discussions	Medical school; in state; out of state	M.D.s	$40	49	
	Johns Hopkins U.	School of Hygiene and Public Health	Dean	Public Health	8 weeks	Repeated 3 times	Clinics, laboratory work	Medical school	M.D.s	$10, $75	25	
	West Baltimore General Hospital	Hospital	Director, Postgraduate Training	Internal Medicine	3 months	Monthly	Clinics, discussions, ward rounds	In state	M.D.s	$30, $125	Not stated	
Massachusetts												
Boston	American College of Physicians	Hospitals	Secretary	Diagnosis and Treatment of Heart Disease	2 weeks	Winter	Clinics, lectures	In state; out of state	Members, A.C.P.; M.D.s seeking certification in the American Board of Internal Medicine	$40	44	
	American College of Surgeons	Hotels	Secretary	31st Annual Clinical Congress	5 days	Winter	Symposiums, discussions, clinics, conferences	In state; out of state	M.D.s	Not stated	Not stated	
	Maine Medical Association	Medical schools, hospitals	Secretary	Preclinical, General and Special	Varies	Throughout the year	Lectures, clinics, discussions, demonstrations	Med. sch.	M.D.s	None	55	The Commonwealth Fund, Bingham Fund
	Harvard Med. Sch. Courses for Grad.	Med. sch., hosps., infirmary, laboratories	Dean	Various subjects (27 courses)	6 days-3 months	Throughout the year	Lectures, clinics	Medical school	M.D.s; some limited to male M.D.s	$10-$600	211	
	Tufts College Medical School	Medical school	Chairman, Postgraduate Division	General and Special (14 courses)	5 days to 3 months	Throughout the year	Lectures, clinics, demonstrations, case presentations, laboratory work, practical work	Medical school	M.D.s	$25-$150	104	
Cambridge	Massachusetts Institute of Technology	School	Not stated	Public Health	2 semesters	Fall	Lectures, demonstrations, discussions, field trips	Staff members	M.D.s, engineers, etc.	$300 per semester	5	
Michigan												
Ann Arbor	Michigan Dep't of Health	Hospital	Director, Bureau of Maternal and Child Health	Obstetrics	2 weeks	Fall	Lectures, clinics, demonstrations, ward rounds, conferences	In state	M.D.s licensed in Michigan	None	15	
Ann Arbor, Detroit	University of Michigan	Medical school, hospital, laboratories	Chairman, Dep't of Postgraduate Education	Courses in Allergy, Anatomy, Cardiology, Gastroenterology, Hematology, Medicine, Ophthalmology and Otolaryngology, Psychiatry and Neurology, Radiology	Varied	Throughout the year	Lectures, demonstrations, ward rounds, discussions, conferences	Medical school; in state	M.D.s	$10-$25	431	
Lansing	Michigan Dep't of Health	Medical school	Director, Bureau of Maternal and Child Health	Obstetrics	2 weeks	Throughout the year	Lectures, clinics, demonstrations, conferences	Medical school	M.D.s	None	55	
Minnesota												
Minneapolis	American College of Physicians	Medical school	Secretary	Internal Medicine	2 weeks	Spring	Lectures, clinics	Medical school; in state; out of state	Members, A.C.P.; M.D.s seeking certification in the American Board of Internal Medicine	$40	51	

	International Medical Assembly of Wisconsin	Hospitals, medical schools	Managing Director	Medicine	7 days	Fall	Lectures, clinics, demonstrations, discussions	Medical school; in state; out of state	M.D.s	$5	Not stated	
	North Dakota Dep't of Health	Medical school	Acting State Health Officer of North Dakota	Obstetrics	1 week	Throughout the year	Lectures, demonstrations	In state	M.D.s selected by district medical societies	Not stated	13	
				Pediatrics	1 week	Throughout the year	Lectures, demonstrations	In state	M.D.s selected by district medical societies	$25	15	
	South Dakota State Board of Health	Medical school	Director, Division of Maternal and Child Health	Obstetrics and Pediatrics	6 days	Winter, spring	Lectures, clinics	Medical school	M.D.s licensed in South Dakota	None	44	United States Children's Bureau
	U. of Minnesota	Medical school	Dean	Various subjects (6 courses)	6 days, 3 months	Fall, winter, spring, summer	Lectures, clinics, symposiums, demonstrations, discussions, conferences, moving pictures	Medical school	M.D.s	$25 per course	403	
Rochester	American College of Physicians	Foundation, clinic	Secretary	Arthritis and Rheumatic Diseases	1 week	Spring	Clinics, lectures	Medical school	Members of A.C.P.; M.D.s seeking certification in the American Board of Internal Medicine	$20	43	
	Mayo Foundation for Medical Education and Research	Clinic	Director	Peripheral Vascular Diseases, including Hypertension	2 weeks	Spring	Clinics, lectures	In state; out of state	Members of A.C.P.; M.D.s seeking certification in the American Board of Internal Medicine	$40	46	
				Civilian and Military Practice	1 week	Winter	Lectures, demonstrations, clinics	Medical school; in state; out of state	M.D.s	None	Not stated	
St. Paul	American College of Physicians	Medical school, hospitals	Secretary	Internal Medicine and Allied Specialties	5 days	Spring	Clinics, discussions, lectures, demonstrations	In state; out of state	Members of A.C.P.; other interested M.D.s	$12	1,450	
Mississippi												
Sanatorium	Mississippi State Tuberculosis Sanatorium	Sanatorium	Superintendent	Tuberculosis	2 weeks	Throughout the year	Clinics, demonstrations, discussions, conferences, bedside teaching	In state	M.D.s	None	3	
Missouri												
St. Louis	American College of Physicians	Medical school	Executive Secretary	Allergy	2 weeks	Spring	Lectures, clinics, demonstrations, conferences	Medical school; in state; out of state	M.D.s	$40	8	
	American Congress on Obstetrics and Gynecology	Hotel	Secretary	Obstetrics and Gynecology	10 days	Spring	Discussions, clinics, demonstrations	In state; out of state	M.D.s	Not stated	Not stated	
	Washington University	Medical School	Dean	Ophthalmology	7 months	Fall	Lectures, clinics	Medical school; in state	M.D.s	$800	6	
				Otolaryngology	7 months	Fall	Lectures, clinics	Medical school; in state	M.D.s	$600	17	
				Thoracic Surgery	6 weeks	Fall	Clinics, laboratory work	Medical school; in state	Members of the U. S. N. Medical Corps	$100	6	
Nebraska												
Lincoln	State Dep't of Health	Medical school	Director, Maternal and Child Health	Obstetrics, Gynecology and Pediatrics	2 weeks	Throughout the year	Lectures, clinics, demonstrations, discussions, practical work	Medical school	M.D.s	$10	Not stated	
Omaha	American Academy of Ophthalmology and Otolaryngology	Local buildings	Secretary for Instruction	Ophthalmology	5 days	Fall	Lectures, clinics, demonstrations, conferences	In state; out of state	Specialists	Not stated	Not stated	
	Omaha Mid-West Clinical Society	Hotel	Secretary	Ninth Annual Assembly	5 days	Fall	Lectures, clinics, moving pictures, discussions, symposiums	In state; out of state	M.D.s	Not stated	Not stated	
New Jersey												
Jersey City	Columbia University Faculty of Medicine	Hospital	Dean	Obstetrics	1-3 months	Throughout the year	Observation, practical work, discussions	Medical school; out of state	M.D.s	$100-$350	18	
Newark	New York U. College of Medicine	Hospital	Dean	Peripheral Vascular Diseases	4 weeks	Winter	Lectures, clinics, demonstrations, conferences	Medical school	M.D.s	$25	10	

TABLE 1.—CONTINUATION COURSES FOR PRACTICING PHYSICIANS, 1941-1942—Continued

B. Where There Are Ample Facilities for Clinical Instruction—Five or More Days

Location of Course	Sponsoring Agencies	Facilities for Graduate Programs	Director of Program	Title of Course	Duration of Course	Course Began	Type of Instruction	Instructors	Eligible to Enroll	Registration Fee and/or Tuition	Approximate Attendance (M.D.s only)	Additional Contributing Agencies and Funds
Trenton	Medical Society of New Jersey	Medical School	Executive Officer	Medicine	6-12 weeks	Winter, twice	Lectures, clinics, demonstrations, discussions	Medical school	M.D.s	$150-$225	Not stated	
New York												
Albany	New York State Dep't of Health, New York State Medical Society	Public buildings	Director	Conference on Chemotherapy	2 days	Fall	Lectures, discussions	In state; out of state	M.D.s	Not stated	107	
Brooklyn	Joint Committee on Post-Graduate Education	Hospital	Registrar	Various subjects (15 courses)	3-8 weeks	Fall, winter, spring	Clinics, demonstrations, conferences, participation	In state	M.D.s	$10-$35	146	
	Medical Society of the County of Kings	Auditorium	Director, Post-graduate Education	Emergency Treatment of War Casualties	2 evenings a week for 2 weeks	Spring, twice	Lectures	In state; out of state	M.D.s	Not stated	Not stated	
Buffalo	U. of Buffalo	Medical school, hospitals	Chairman, Dep't of Postgraduate and Continuation Work	General	2 weeks	Fall	Lectures, clinics, ward rounds	Medical school; in state	M.D.s	$50	50	
New York	American Academy of Dermatology and Syphilology	Hotel	Secretary	Fourth Annual Meeting	5 days	Winter	Lectures, discussions, symposiums	In state; out of state	Specialists	Not stated	Not stated	
	American College of Physicians	Hospital	Secretary	Allergy	2 weeks	Winter	Clinics, lectures	In state; out of state	Members of A.C.P.; M.D.s seeking certification in the American Board of Internal Medicine	$40	7	
	Columbia U. (98 courses)	Medical school, hospital	Dean	Preclinical, General and Special	5 days to 3 months	Throughout the year	Lectures, clinics, demonstrations, ward rounds, practical work, laboratory work, conferences	Medical school	M.D.s	$20-$400	1,158	
	New York Academy of Medicine	Medical school	Executive Secretary	Peripheral Vascular Diseases	2 weeks	Fall	Lectures, clinics, demonstrations, discussions, exhibits	Medical school	M.D.s	$5	699	
	New York City Dep't of Health	Clinics, laboratories	Director, Bureau of Social Hygiene	Venereal Diseases	4-8 weeks	Throughout the year	Clinics, demonstrations, laboratory work	Medical school; in state	M.D.s	None	120	Federal Venereal Disease Control Appropriation
	New York Eye and Ear Infirmary, School of Ophthalmology and Otology	Infirmary	Registrar	Ophthalmology and Otolaryngology (5 courses)	1 week to 3 months	Throughout the year	Lectures, clinics, demonstrations, conferences, laboratory work	Medical school	M.D.s	$40-$250	197	
	New York Medical College, Flower and 5th Avenue Hospitals	Medical school, hospitals	Dean	Various subjects (12 courses)	10 hours-8 weeks	Throughout the year	Lectures, demonstrations, conferences	Medical school	M.D.s	$75-$250	52	
	New York Polyclinic Medical School and Hospital (13 courses)	Medical school, hospital	Medical, Executive Officer	General and Special (13 courses)	1 to 9 months	Throughout the year	Lectures, clinics, ward rounds, demonstrations, practical work	Medical school	M.D.s	$50-$1,000	92	
	New York U.	Medical school	Ass't Dean	Various subjects (11 courses)	3-15 weeks	Fall, spring, summer	Lectures, discussions, practical work	Medical school	M.D.s	$150	82	
Saranac Lake	Trudeau Foundation	Sanatoriums, laboratories	Director, Trudeau School of Tuberculosis	Tuberculosis	1 month	Fall	Lectures, clinics, quizzes, demonstrations	In state; out of state	M.D.s, senior medical students	$100	20	Lillia Babbitt Hyde Foundation of New York City
North Carolina												
Chapel Hill	North Carolina State Board of Health, U. of North Carolina School of Public Health	School of Public Health	Chairmen, Joint Committee	Venereal Disease Control	5 days	Fall, 5 times	Lectures, demonstrations, participation	In state	M.D.s working in Venereal Disease Clinics	None	25	Zachary Smith Reynolds Foundation, United States Public Health Service
	U. of North Carolina	School of Public Health	Dean	Public Health	3 or 4 months	Fall	Lectures, laboratory work, field trips	Public health school	M.D.s, public health workers	$100	14	United States Public Health Service

Durham	North Carolina State Board of Health, North Carolina Med. Society, Duke Hospital, U. of North Carolina School of Public Health	Clinic and hospital	Chairmen, Joint Committee	Obstetrics and Pediatrics	1 week	Spring-summer	Lectures, quizzes, discussions	In state	M.D.s	None	111	United States Children's Bureau
North Dakota												
Bismarck	North Dakota Dep't of Health	Medical school, hospital	Acting State Health Officer	Obstetrics	1 week	Throughout the year	Lectures, clinics	Medical school; in state	M.D.s	None	19	
Ohio												
Cincinnati	U. of Cincinnati	Medical school, hospitals	Dean	Otology, Rhinology and Laryngology: Operative Course (cadaver)	1 week	Spring	Demonstrations, lectures, laboratory work, discussions	Medical school	M.D.s	$75	25	
Oklahoma												
Oklahoma City	U. of Oklahoma	Medical school	Assoc. Professor of Obstetrics	Obstetrics	15 days	Throughout the year	Lectures, clinics, demonstrations, discussions, ward rounds	Medical school	M.D.s	$25	24	Federal funds
Oregon												
Portland	U. of Oregon	Medical school	Acting Dean	General Postgraduate Session	5 days	Spring	Lectures, discussions, demonstrations	Medical school	M.D.s	None	Not stated	Alumni Ass'n. of the University of Oregon Medical school
				Obstetrics and Gynecology	5 days	Winter	Lectures, discussions, demonstrations	Medical school	M.D.s	$25	78	State boards of health of Washington and Oregon
	U. of Oregon, Oregon Academy of Ophthalmology and Otolaryngology			Otolaryngology and Ophthalmology	1 week	Spring	Lectures, clinics, discussions	Medical school	M.D.s	$25	50	
	Washington State Dep't of Health	Medical school	Director, Dep't of Health	Obstetrics	5-7 days	Fall	Lectures, clinics, demonstrations, conferences	Medical school	M.D.s	$15-25	30	
Pennsylvania												
Philadelphia	American College of Physicians	Medical school, hospital	Secretary	Gastrointestinal Diseases	1 week	Winter	Lectures, clinics	In state, out of state	Members of A.C.P., M.D.s	$20	35	
	Hahnemann Hospital	Medical school, hospital	Dean, Hahnemann Medical College	Cardiology	Arranged	Throughout the year	Lectures, clinics	Medical school	M.D.s	Varied	10	
				Diseases of the Chest	Arranged	Throughout the year	Lectures, clinics	Medical school	M.D.s	Varied	10	
				Pathology	Arranged	Throughout the year	Lectures, clinics	Medical school	M.D.s	Varied	10	
	Philadelphia County Medical Society	Hotel	Director	Medicine (General Course)	5 days	Spring	Symposiums, clinics	Medical school; in state	M.D.s	$0-5	3,100	
	Temple U.	Medical school	Dean	Broncho-esophagology	2 weeks	Spring	Clinics, conferences	Medical school	M.D.s	$250	12	
	U. of Pennsylvania	Medical school	Dean	Various subjects (7 courses)	5 days-16 weeks	Throughout the year	Lectures, clinics	Medical school	M.D.s, specialists	$60-$400	41	
	Women's Medical College of Pennsylvania	Medical school	Dean	Various subjects (5 courses)	8 months	Fall	Lectures, clinics	Medical school	M.D.s	$100-300	Not stated	
South Carolina												
Charleston	Medical College of the State of South Carolina	Medical school	Dean	Obstetrics and Pediatrics	2 weeks	Throughout the year	Clinics, symposiums, conferences	Medical school	M.D.s	$50	25	
Tennessee												
Nashville	Meharry Medical College	Medical school, hospital	Chairman, Comm. on Postgraduate Course	General Course, Pediatrics and Obstetrics (2 courses)	2 weeks	Summer	Symposiums, lectures, ward rounds, clinics, demonstrations, discussions	Medical school	Negro M.D.s	$20 per course	40	
Vermont												
Burlington	U. of Vermont	Medical school	Dean	Ophthalmology	5 days	Summer	Lectures, clinics, symposiums	Medical school	M.D.s	$50	15	
Virginia												
Roanoke	Gill Memorial Hospital	Hospital	Resident Member	Ophthalmology, Bronchoscopy, Otolaryngology, Head Surgery	1 week	Spring	Lectures, clinics, demonstrations, dissections	In state, out of state	Specialists	$50	98	
Wisconsin												
Madison	U. of Wisconsin	Medical school	Dean	Medicine	1 week	Spring	Lectures, demonstrations, clinics	Medical school	M.D.s	$10	Not stated	

TABLE 2.—CLINICAL CONFERENCES, GRADUATE ASSEMBLIES, STUDY COURSES, ETC., 1941-1942

Location of Course	Sponsoring Agencies	Facilities for Graduate Programs	Director of Program	Title of Course	Duration of Course	Course Began	Type of Instruction	Instructors	Eligible to Enroll	Registration Fee and/or Tuition	Approximate Attendance (M.D.s only)	Additional Contributing Agencies and Funds
Arkansas												
Little Rock	Arkansas Medical Society	Medical school	Chairman, Committee on Postgraduate Study	Varied	2 days	Fall	Symposiums, lectures, discussions	In state	M.D.s licensed in Arkansas	$3	106	
California												
Los Angeles	California Tuberculosis Assn.	Hotel, sanatorium	Associate Professor of Medicine, University of California	Graduate Assembly	3 days	Spring	Lectures, clinics, symposiums	Medical schools; in state; out of state	Members of county medical societies	None	200	
	College of Medical Evangelists Alumni Assn.	Hospital	Secretary	8th Annual Postgraduate Assembly	1 day	Winter	Lectures, discussions	In state	M.D.s licensed in California	Not stated	Not stated	
	Los Angeles Heart Assn.	Hospitals, public buildings	Chairman, Program Committee	Cardiology	2 days	Winter	Lectures, clinics, symposiums, demonstrations, discussions, moving pictures	Medical school; in state	M.D.s	$5	82	
Riverside	Southern California Medical Assn.	Hotel	Chairman, Committee on Postgraduate Educ.	106th Annual Meeting	2 days	Spring	Symposiums	In state; out of state	M.D.s licensed in California	Not stated	Not stated	
San Francisco	American Academy of Pediatrics and its San Francisco affiliates	Auditorium	Secretary	Health Education	2 days	Spring	Lectures, discussions	In state	M.D.s licensed in California	Not stated	Not stated	
	Postgraduate Symposium	Hospitals	Chairman, Program Committee	Cardiology	3 days	Fall	Lectures, clinics, symposiums, demonstrations, discussions, moving pictures	Medical school; in state	M.D.s	$15	86	
	Univ. of Calif., State Dept. of Public Health, Calif. Med. Assn.	Medical school	Director, Refresher Courses	Pediatrics	Not stated	Repeated	Lectures, discussions	Medical school	Selected M.D.s from Calif., Nev., Utah and Ariz.	None	300	
San Jose	San Jose Hospital Assn.	Auditorium	Chairman of the Staff	Early Clinical Diagnosis of Neoplastic Diseases	5 evenings	Spring	Lectures	Out of state	M.D.s	Not stated	Not stated	
Colorado												
Denver	Colorado State Medical Society	Public buildings	Executive Secretary	Postgraduate Clinics	3 days	Winter	Lectures, clinics	In state; out of state	M.D.s	$5	125	
		Hospital		Orthopedic Surgery	3 days	Winter	Lectures, discussions	In state; out of state	M.D.s	$10	35	
		Med. school		Pneumonia	3 days	Winter	Lectures, discussions	In state; out of state	M.D.s	$10	35	
		Hospital		Psychiatry and Neurology	3 days	Winter	Lectures, discussions	In state; out of state	M.D.s	$10	20	
Connecticut												
New Haven	Connecticut State Medical Society	Yale Univ. law bldgs., hospital	Dean, Yale Univ. School of Medicine	General	3 days	Fall	Lectures, demonstrations	Medical schools; in state; out of state	M.D.s	$2	700	
Florida												
Hollywood	Florida Medical Assn.	Hotel	Secretary	69th Annual Convention	3 days	Spring	Symposiums, clinics, exhibits	In state; out of state	M.D.s	None	499	
Georgia												
Atlanta	Emory University School of Med., Grady Hospital, State Board of Health	Med. school, hospital	Chairman, Program Committee	General	3 days	Summer	Clinics, lectures	Medical schools; in state	M.D.s	None	132	
Illinois												
Chicago	Central States Society of Industrial Medicine and Surgery, Chicago Society of Industrial Medicine and Surgery	Hotel, hospital	Joint Program Chairmen	Joint Annual Meeting: War Surgery and Allied Subjects	1 day	Spring	Clinics, symposium, discussions	In state; out of state	M.D.s	None	300	

Iowa												
Iowa City	State Hygienic Laboratory	Laboratory	Director	Pneumonia Typing Technic	3 days	Throughout the year	Lectures, demonstrations, laboratory work	Medical school	M.D.s and technicians	None	4	
Kansas												
Kansas City	University of Kansas	Medical school	Chairman, Postgraduate Courses	Medicine	4 days	Spring	Lectures, clinics, symposiums, demonstrations, conferences	Medical school	M.D.s	None	135	
Louisiana												
Lafayette	La. State Dept. of Health, Louisiana State Dept. of Institutions, La. State Medical Society	Hospital	State Health Officer	Obstetrics	1 day	Monthly	Discussions	In state	M.D.s licensed in Louisiana	None	130	
New Orleans	New Orleans Graduate Medical Assembly	Not stated	Secretary	6th Annual Meeting	4 days	Spring	Lectures, clinics, symposiums, conferences, exhibits, moving pictures	In state; out of state	M.D.s	$10	989	
Pineville	La. State Dept. of Health, La. State Dept. of Institutions, La. State Medical Society	Hospital	State Health Officer	Obstetrics	1 day	Monthly	Discussions	In state	M.D.s licensed in Louisiana	None	286	
Maine												
Portland	Maine Medical Assn.	Hospitals	Chairman, Scientific Committee	Clinical Medicine	2 days	Spring, fall	Lectures, conferences, clinics	In state; out of state	Members, Maine Medical Assn.	Not stated	Not stated	
Massachusetts												
Boston	Aero Medical Assn. of the United States	Hotel	Secretary	Aviation Medicine	3 days	Fall	Lectures, discussions, forums	In state; out of state	M.D.s	Not stated	Not stated	
	Commonwealth of Massachusetts Dept. of Public Health, Harvard School of Public Health	Med. school, clinic	Chairman, Graduate Education Committee	Prenatal Care	1 day a week for 4 weeks	Spring	Clinics, lectures	Medical school; in state	Prenatal clinic physicians of Massachusetts	None	6	
	Tufts College Medical School	Med. school	Chairman, Postgraduate Division	Electrocardiography	3 days	Winter	Lectures, clinics, demonstrations, discussions	Medical school	M.D.s	$20	Not stated	
Cambridge	State Medical Societies of Mass., New Hampshire, Rhode Island, Maine, Vt. and Conn.	Med. school	Chairman, Postgraduate Education Committee	New England Postgraduate Assembly	2 days	Fall	Lectures, discussions	In state; out of state	M.D.s	$3	698	Harvard Medical School
Michigan												
Detroit	Forum on Allergy	Hotel, clinic	Secretary	4th Annual Forum	2 days	Winter	Lectures, discussions, symposiums, field trip, exhibits	In state; out of state	M.D.s	Not stated	Not stated	
Minnesota												
Minneapolis	Minnesota Dept. of Health	Medical school	Secretary	Obstetrics	3 days	Spring	Not stated	Medical school	M.D.s	Not stated	27	
	University of Minnesota	Medical	Director, Dept. of Postgrad. Medicine	Diseases of Early Childhood	3 days	Summer	Not stated	Medical school	M.D.s	Not stated	56	
				Radiology (3 courses)	3 days, 4 days	Winter, spring	Not stated	Medical school	M.D.s	Not stated	124	
				Sulfonamide Therapy	3 days	Winter	Not stated	Medical school	M.D.s	Not stated	19	
				Urology	3 days	Winter	Not stated	Medical school	M.D.s	Not stated	25	
St. Paul	Western Surgical Assn.	Hotel	President	51st Annual Meeting	2 days	Winter	Lectures, discussions	In state; out of state	M.D.s	Not stated	Not stated	
Missouri												
Kansas City	Kansas City Clinical Society	Auditorium	Secretary	Medicine, Surgery, Specialties	4 days	Fall	Lectures, discussions, refresher courses	Medical schools; in state; out of state	M.D.s, Jr. and Sr. students, U. Kansas	$5	950	Technical Exhibitor Rentals; active members

TABLE 2.—CLINICAL CONFERENCES, GRADUATE ASSEMBLIES, STUDY COURSES, ETC., 1941-1942—Continued

Location of Course	Sponsoring Agencies	Facilities for Graduate Programs	Director of Program	Title of Course	Duration of Course	Course Began	Type of Instruction	Instructors	Eligible to Enroll	Registration Fee and/or Tuition	Approximate Attendance (M.D.s only)	Additional Contributing Agencies and Funds
St. Louis	St. Louis Clinics	Clinics	Secretary	Medicine	4 days	Spring	Lectures, demonstrations, clinics, discussions, conferences	Medical school; out of state	M.D.s	$10	103	
	Southern Medical Assn., St. Louis Medical Society	Hotel	Secretary	35th Annual Meeting	4 days	Winter	Lectures, discussions	In state; out of state	M.D.s	Not stated	Not stated	
Nebraska Lincoln	Nebraska Postgraduate Study Guild, International College of Surgeons	Hospital, hotel	Chairman, Committee on Arrangements	Surgery	1 day	Spring	Clinics, discussions	In state; out of state	M.D.s	Not stated	200	
New Jersey Atlantic City	American Academy of Orthopedic Surgeons	Hotel	Secretary	10th Annual Convention	2 days	Winter	Lectures, discussions, motion pictures	In state; out of state	M.D.s	Not stated	Not stated	
New York Albany	New York State Dept. of Health, Med. Soc. of the State of N. Y.	Local buildings	Director	Chemotherapy	2 days	Fall	Lectures, discussions	In state, out of state	Members of Speakers Comm. on Sulfonamide Therapy of N.Y. State Med. Soc. and interested key individuals	None	125	
New York	Tuberculosis Sanatorium Conference of Metropolitan New York	Medical school	Secretary	Tuberculosis	1 day	Winter	Clinics, lectures, discussions	Medical school	M.D.s	None	Not stated	
	National Foundation for Infantile Paralysis	Medical school	President	2nd Annual Meeting	3 days	Winter	Reports, summaries, discussions	In state; out of state	M.D.s	Not stated	Not stated	
	New York Tuberculosis and Health Assn.	Hospital, clinics	Secretary	Syphilis	4 sessions	Throughout the year	Papers, discussions	In state	Heads of syphilis clinics	None	50	
	State of New York Dept. of Health	Not stated	Regional Medical Officer, 2d civilian Defense Region	Medical Aspects of Gas Warfare	2 days	Spring	Lectures, discussions	In state; out of state	Emergency medical officers and selected M.D.s	None	Not stated	
	Tuberculosis Sanatorium Conference of Metropolitan New York, New York Tuberculosis and Health Assn.	Medical college	Secretary	Chronic Pulmonary Diseases	1 day	Repeated 6 times	Lectures, demonstrations	In state	M.D.s	None	200	
Rochester	University of Rochester School of Medicine and Dentistry, Medical Society of the County of Monroe, Medical Society of the State of New York	Medical school	Dean	Postgraduate Institute [2]	3 days	Winter	Forums, lectures, question box, discussions, symposium	In state; out of state	M.D.s	Not stated	63	
North Carolina Durham	Duke Hospital	Hospital	Member of Staff	Medicine	1 day	Fall	Lectures, clinics, symposiums, demonstrations	Medical school	Negro M.D.s	$5	59	
	Duke University School of Medicine	Medical school	Dean	Problems of Civil and Military Emergencies	3 days	Fall	Lectures	In state; out of state	M.D.s	None	400	
Saluda	Boards of Health of various Southern States	Sanatorium, hospital, clinics	Registrar	Pediatrics and Obstetrics	2 weeks	Summer	Lectures, demonstrations, ward rounds	In state; out of state	M.D.s, nurses	$25	100	

Ohio											
Cincinnati	American Ass'n. of Industrial Physicians and Surgeons	Hotels, hospitals	Secretary	Annual Meeting	4 days	Spring	Clinics, observation, lectures, conferences, symposiums, exhibits	In state; out of state	M.D.s	$2	400
	University of Cincinnati	Medical school	Professor of Dermatology and Director of Laboratories	Medical Aspects of Chemical Warfare	4 days	Winter, Spring	Not stated		M.D.s	Not stated	60
Cleveland	Western Reserve University School of Medicine	Medical school	Dean	General	3 days a week for 1 month	Fall	Lectures	Medical school	M.D.s	None	41
Columbus	Ohio State University	Medical school	Dean	Medicine	3 days	Spring	Lectures, clinics, discussions	Medical school	M.D.s	$2-5	Not stated
	Ohio State Medical Assn.	Hotel	Program Chairman	96th Annual Meeting	3 days	Spring	Lectures, quizzes, discussions, moving pictures	In state; out of state	M.D.s	None	1,301
Oklahoma											
Oklahoma City	Oklahoma City Clinical Society	Public buildings	Executive Secretary	Medicine	4 days	Fall	Lectures, symposiums, discussions	Medical school; in state; out of state	M.D.s	$10	538
Oregon											
Portland	American College of Surgeons	Medical school	Secretary	General	4 days	Spring	Lectures, clinics	Medical school	M.D.s	Not stated	Not stated
	North Pacific Psychiatric Assn.	Medical school	Secretary	General	1 day	Spring	Lectures, clinics	Medical school	M.D.s	Not stated	Not stated
	North Pacific Surgical Assn.	Medical school	Secretary	Annual Meeting	2 days	Winter	Lectures, discussions	In state, out of state	Surgeons	Not stated	Not stated
	Oregon State Health Officers' Assn.	Medical school	Not stated	Annual Meeting	1 day	Spring	Lectures, clinics	Medical school	M.D.s	Not stated	Not stated
	Oregon State Medical Society	Medical school	Secretary	Annual Meeting	2 days	Fall	Lectures, clinics	Medical school	M.D.s	Not stated	Not stated
	Pacific Northwest Medical Assn.	Public buildings	Secretary-Treasurer	Physiology, Bacteriology, Roentgenology, Medicine, Surgery, Urology, Military Medicine	4 days	Summer	Lectures, discussions	In state, out of state	M.D.s	$12	Not stated
	Pacific Northwest Society of Pathologists	Medical school	Secretary	General	1 day	Spring	Lectures, clinics	Medical school	M.D.s	Not stated	Not stated
	Portland Academy of Medicine	Medical school	Not stated	General	3 days	Winter, spring	Lectures, clinics	Medical school	M.D.s	Not stated	Not stated
	University of Oregon	Medical school	Acting Dean	Pediatrics	3 days	Winter	Lectures, clinics, discussions	Medical school	M.D.s	Not stated	Not stated
Pennsylvania											
Philadelphia	Germantown Dispensary and Hospital	Hospital	Director of Laboratories	Medicine	3 days	Winter	Lectures, clinics, demonstrations, symposiums, discussions, conferences	Medical school; in state	M.D.s	None	89
Pittsburgh	American Congress of Physical Therapy	Hotel	Executive Director	21st Annual Scientific and Clinical Session	4 days	Fall	Seminars, clinics, discussions	In state; out of state	M.D.s, registered technicians	$2-15	300
	Industrial Hygiene Foundation of America	Institute	Secretary	6th Annual Meeting	2 days	Winter	Lectures, discussions	In state; out of state	M.D.s	Not stated	Not stated
	Tuberculosis League of Pittsburgh	Not stated	Chairman, Steering Committee	Public Health	4 days	Spring	Lectures, discussions	In state; out of state	M.D.s	None	Not stated
	Postgraduate Institute on Public Health	Not stated	Chairman	Third Annual Institute: Tuberculosis, Syphilis, Pediatrics, Obstetrics	2 days	Spring	Lectures, discussions	In state; out of state	M.D.s licensed in Pennsylvania	None	Not stated
Skytop	American Clinical and Climatological Assn.	Local buildings	Secretary	58th Annual Meeting	3 days	Fall	Lectures, discussions	In state; out of state	M.D.s	Not stated	Not stated
Tennessee											
Memphis	Mid-South Post Graduate Medical Assembly	Hotel	Secretary-Treasurer	57th Annual Convention	4 days	Winter	Lectures, discussions	Out of state	Members, Arkansas Medical Society	$5	783
Texas											
Dallas	Dallas Southern Clinical Society	Hospital	Secretary	Cardiovascular Disease, Dermatology, Fractures, Obstetrics	3 days	Summer	Clinics	In state	M.D.s	$10	37

TABLE 2.—CLINICAL CONFERENCES, GRADUATE ASSEMBLIES, STUDY COURSES, ETC., 1941-1942—Continued

Location of Course	Sponsoring Agencies	Facilities for Graduate Programs	Director of Program	Title of Course	Duration of Course	Course Began	Type of Instruction	Instructors	Eligible to Enroll	Registration Fee and/or Tuition	Approximate Attendance (M.D.s only)	Additional Contributing Agencies and Funds
Houston	Postgraduate Medical Assembly of Southern Tex.	Hospitals	Program Chairman	11th Annual Meeting	3 days	Winter	Lectures, discussions, symposiums	Medical school; in state; out of state	M.D.s, nurses, technicians	$10	700	Technical exhibitors
Marshall	Northeast Texas Medical Assn.	Hotel	Secretary	General	1 day	Winter	Clinics, lectures	Medical schools; in state	M.D.s	$2	50	
Prairie View	Texas Tuberculosis Assn., Texas State Dept. of Health, Lone Star State Medical, Dental and Pharmaceutical Assn., Prairie View State College for Negroes, National Tuberculosis Assn.	Lecture rooms, hospital	Exec. Secretary Texas Tuberculosis Assn. Director, Maternal and Child Health, Texas State Health Dept.; Steering Committee of 16 Negro Physicians	Tuberculosis, Syphilis, Pediatrics, Obstetrics, Heart Disease	4 days	Spring	Clinics, lectures	In state; out of state	Negro M.D.s	None	56	The Hogg Memorial Foundation of the University of Texas
Vermont Burlington	Vermont State Medical Society	Medical school	Secretary	127th Annual Meeting	2 days	Fall	Lectures, discussions	In state; out of state	M.D.s	None	123	
Virginia University	University of Virginia	Medical school	Chairman, Graduate Clinics	Gastroenterology	2 days	Winter	Symposium	In state; out of state	M.D.s	$15-25	47	
Wisconsin Madison	State Medical Society of Wisconsin	Medical school, university buildings	Secretary	General	3 days	Fall	Lectures, conferences, exhibits	In state; out of state	Members, State Medical Society	None	1,200	

(Continued from page 1299)

There were nineteen states that offered continuation study for the practicing physician in or near their home communities. Continuation study in centers where there are ample clinical facilities were offered in thirty-two states and the District of Columbia. Graduate assemblies in twenty-eight states.

The approximate attendance reported at these circuit courses totaled 37,611. The individual registration of these groups was 11,029 for courses offered in or near home communities, 14,879 for centers where there are ample clinical facilities and 11,703 for clinical conferences, graduate assemblies and study courses.

The study of general medical and surgical subjects the specialties and subspecialties in various combinations were offered. Clinical instruction and practical experience included laboratory and operative demonstrations, symposiums, seminars, assignment of patients, case presentation, clinical pathologic and roentgen ray conferences, movies, ward rounds, field trips and bedside teaching.

COMMENT

The registration for these three types of courses was lower than that reported for the session 1940-1941, when 43,621 individuals attended courses. The drop in attendance was in courses offered to physicians in or near their home communities and in the graduate assemblies, while in centers providing ample clinical facilties the attendance exceeded that for 1940-1941 by 2,331. As a result of the exigencies of the war, several programs were canceled. Furthermore, medical schools report that, because of unsettled conditions, the institution of the accelerated program of undergraduate medical education and because their faculties have been so depleted, it would be difficult for them to plan any activity aside from undergraduate instruction in the immediate future. Many state medical societies and departments of health are curtailing or discontinuing refresher courses because of lack of adequate personnel to conduct them.

Although the many difficulties in connection with the conduct of continuation and refresher courses during the war are fully appreciated, it is hoped that they will be continued as far as possible. Considerable thought should be given to the selection of subjects for the programs offered. These will naturally differ in the various localities. The war will undoubtedly present to the physicians in civilian practice many new and difficult problems. Thus state medical societies and other agencies may be in a position to make a great contribution by dealing with these problems in such continuation and refresher courses as they are in a position to offer.

For the past year the Council has gathered data on proposed courses and has published this material at quarterly intervals in THE JOURNAL. Included in this summary, in addition to the name of the institution and location, is given the date when instruction begins, the length and content of the courses, the type of instruction offered, the number of physicians accepted for each course and their eligibility, the instructors participating and the fee charged.

The House of Delegates of the American Medical Association, at its annual meeting in June 1942, instructed the Council to develop a program of refresher courses for physicians returning to civilian practice after the war and study the problem involved in the provision of opportunities for the further training of young men who have entered the armed forces after the completion of one year of internship.

APPROVED INTERNSHIPS

Council on Medical Education and Hospitals of the American Medical Association

535 North Dearborn Street, Chicago

Revised to Aug. 15, 1942

The following general hospitals are considered in position to furnish acceptable internships of at least one year duration. They are also accredited for mixed residencies, which represent general assignments following an approved intern service.
The ✦ sign indicates additional approval for residencies in specialties.

HOSPITALS, 739. INTERNSHIPS, 8,349
CAPACITY, 258,660 BEDS

The terms used in the column "Type of Internship" are defined as follows:

1. A full rotating internship provides training in medicine, surgery, pediatrics, obstetrics, pathology and radiology. (X-ray and laboratory duties may be combined with clinical services or constitute separate assignments.)

2. A mixed or limited rotating internship covers more than one of the clinical specialties but does not include all of the divisions listed above.

3. A straight internship is an assignment limited to a single department but may include the subspecialties of the same branch. Straight internships are now approved in the divisions of medicine, surgery, pediatrics, pathology, obstetrics and obstetrics-gynecology.

ABBREVIATIONS

Army	United States Army	Indiv	Individual	Part	Partnership
CyCo	City and County	M	Mixed	Req	Required
Corp	Corporation unrestricted as to profit	NPAssn	Nonprofit association	R	Rotating
Fed	Federal	Op	Optional	S	Straight
				USPHS	United States Public Health Service

The following list of approved internships has been revised to date of publication in order to record the changes that have recently occurred in relation to military needs and the requirements of the present accelerated program of medical education. The clinical data included in this list are for the year 1941, but information concerning the type of internship offered, number of interns, length of service, date of appointment, beginning of service and monthly stipend is reported as of July 1942. The bed capacity and admissions in federal hospitals included in this list are identical with the data published in the Hospital Number of THE JOURNAL A. M. A., March 28, 1942.

Name of Hospital	Location	Control	Capacity	Total Patients Admitted	% Service Cases	% Priv. Pts. Worked Up by Interns	Type of Internship	Interns Appointed Annually	Length of Service in Months	Service Commences	Affiliated Service	Outpatient Service	Autopsy Percentage	Stipend per Month	Appointments Made
ALABAMA															
Hillman Hospital ✦	Birmingham	County	478	10,592	100	..	R	15	12	Quarterly	No	Req	28	No	Quarterly
Norwood Hospital [1]✦	Birmingham	Church	245	7,038	93	85	R	8	12	Varies	No	Req	50	$50	Nov
Employees' Hospital of the Tennessee Coal, Iron and Railroad Company ✦	Fairfield	NPAssn	327	8,782	100	..	R	12	12	July	No	Req	32	$27.50	Varies
City Hospital	Mobile	CyCo	145	3,868	87	75	R	5	12	Varies	No	Req	23	$25(d)	Varies
ARIZONA															
Good Samaritan Hospital	Phoenix	Church	196	4,829	..	85	R	5	12	July	No	None	29	$50	Varies
St. Joseph's Hospital [1]	Phoenix	Church	246	6,086	3	95	R	6	12	Varies	No	None	55	$30	Varies
ARKANSAS															
Baptist State Hospital ✦	Little Rock	Church	365	5,354	14	100	R	6	12	July	No	None	20	$40	Nov
St. Vincent Infirmary	Little Rock	Church	233	6,158	12	17	R	6	12	June	No	None	20	$40	Nov
University Hospital	Little Rock	State	245	3,712	100	..	R	12	12	July	No	Req	35	$25	Nov
CALIFORNIA															
General Hospital of Fresno County ✦	Fresno	County	540	8,181	100	..	R	12	12	July	No	Req	38	$25	Nov
Glendale Sanitarium and Hospital [1]	Glendale	Church	225	5,323	30	90	R	4	12	July	No	Req	19	$75(a)	Nov
Loma Linda Sanitarium and Hospital [1]	Loma Linda	Church	134	3,233	85	50	R	4	12	July	No	Req	40	$60(a)	Sept
California Hospital ✦	Los Angeles	Church	293	9,784	..	95	R	14	12	Varies	(4)	Req	38	$25(s)	Varies
Cedars of Lebanon Hospital [2]✦	Los Angeles	NPAssn	298	8,831	18	..	R	13	12	July	(5)	Req	35	$20	Nov
Hospital of the Good Samaritan [1]	Los Angeles	Church	444	10,511	..	50	R	20	12	July	(6)	Req	52	$40	Oct
Los Angeles County Hospital [1,3]✦	Los Angeles	County	4,011	49,376	100	..	R	125	12	April	No	Req	60	$25	Oct
Presbyterian Hospital-Olmsted Memorial [1]	Los Angeles	NPAssn	325	8,298	..	..	R	6	12	Varies	(5)	None	31	$25	Varies
Queen of Angels Hospital	Los Angeles	Church	389	10,918	..	100	R	10	12	Varies	No	Req	41	$30	Nov
St. Vincent's Hospital [1]✦	Los Angeles	Church	285	8,078	..	100	R	6	12	FebJuly	No	None	47	$40	Varies
Santa Fe Coast Lines Hospital	Los Angeles	NPAssn	190	4,000	100	..	M	8	12	July	(7)	Req	77	$30	Dec
White Memorial Hospital [1]✦	Los Angeles	Church	227	8,036	67	100	R	16	12	July	No	Req	50	$60(a)	Oct
United States Naval Hospital	Mare Island	Navy	489	5,616	100	..	R	..	12	July	No	Req	76	(b)	Varies
Highland-Alameda County Hospital [1,3]✦	Oakland	County	511	10,413	100	..	R	30	12	Varies	(8)	Op	54	$20	Varies
Orange County General Hospital	Orange	County	352	3,633	100	..	R	10	12	FebJuly	No	Req	42	$25	Nov
Collis P. and Howard Huntington Memorial Hospital ✦	Pasadena	NPAssn	238	6,751	..	..	R	6	12	AprJuly	(9)	Req	62	$30	Varies
Sacramento County Hospital	Sacramento	County	500	8,231	100	..	R	12	12	April	No	Req	40	$35	Oct
San Bernardino County Charity Hospital ✦	San Bernardino	County	341	4,402	100	..	R	9	12	April	No	Req	55	$40	Sept
San Diego County General Hospital ✦	San Diego	County	569	8,607	100	..	R	15	12	Varies	No	Req	33	$20	Varies
United States Naval Hospital	San Diego	Navy	1,184	9,711	100	..	R	17	12	July	(10)	Req	83	(b)	Varies
Children's Hospital [2]✦	San Francisco	NPAssn	250	5,257	20	82	R	10	12	July	No	Req	41	$50 yr	July
Franklin Hospital [1]✦	San Francisco	NPAssn	248	5,892	60	85	R	10	12	July	No	Op	43	$25	Nov
French Hospital [1]✦	San Francisco	NPAssn	232	4,230	98	100	R	7	12	April	No	Req	49	$35(e)	Aug
Letterman General Hospital [2]	San Francisco	Army	1,202	9,064	100	..	R	10	12	July	No	Req	79	$60	Varies
Mary's Help Hospital ✦	San Francisco	Church	150	3,639	7	100	R	5	12	July	No	Req	40	$35	Nov
Mount Zion Hospital [1]✦	San Francisco	NPAssn	187	4,275	23	100	R	7	12	MarOct	No	Req	54	$15	AprSept
St. Joseph's Hospital	San Francisco	Church	289	6,214	..	..	R	8	12	MarJuly	No	None	23	$25	Varies
St. Luke's Hospital [1]✦	San Francisco	Church	220	5,411	16	100	R	10	12	Quarterly	No	Req	48	$20(e)	Varies
St. Mary's Hospital	San Francisco	Church	385	9,491	12	100	R	8	12	July	No	Req	24	$25	Varies
San Francisco Hospital [1]✦	San Francisco	CyCo	1,476	16,740	100	..	R	52	12	July	(11)	Req	47	$10	Nov
Southern Pacific General Hospital	San Francisco	NPAssn	400	6,034	100	..	R	16	12	July	(12)	Req	43	$30	Oct
Stanford University Hospitals [1]✦	San Francisco	NPAssn	348	8,911	46	..	S	15	12	July	No	Req	50	No	Jan
United States Marine Hospital [3]	San Francisco	USPHS	485	5,211	100	..	R	12	12	July	(13)	Op	78	$62.50	Varies
University of California Hospital [1]✦	San Francisco	State	309	7,258	64	90	S	21	12	July	No	Req	88	$50 yr	Nov
Santa Clara County Hospital ✦	San Jose	County	571	7,501	100	..	R	10	12	July	No	Req	33	$25	Nov
St. Francis Hospital [1]	Santa Barbara	Church	105	2,245	3	100	R	3	12	July	No	None	54	$40(f)	July
Santa Barbara Cottage Hospital [1]✦	Santa Barbara	NPAssn	185	3,921	..	100	R	6	12	July	No	None	65	$50	Nov
Santa Barbara General Hospital [1]	Santa Barbara	County	312	2,227	100	..	R	6	12	June	No	Req	66	$25	Sept

Numerical and other references will be found on page 1321.

Name of Hospital	Location	Control	Capacity	Total Patients Admitted	% Service Cases	% Priv. Pts. Worked Up by Interns	Type of Internship	Interns Appointed Annually	Length of Service in Months	Service Commences	Affiliated Service	Outpatient Service	Autopsy Percentage	Stipend per Month	Appointments Made
COLORADO															
Boulder-Colorado Sanit. and Hospital [1]	Boulder	Church	107	1,274	75	100	R	2	12	Jan	(14)	Op	26	$50	Nov
Beth-El General Hospital and Sanatorium [1]	Colorado Springs	Church	219	2,262	..	..	R	2	12	July	No	None	33	$50	July
St. Francis Hospital and Sanatorium	Colorado Springs	Church	165	1,655	..	100	R	2	12	Jan	No	None	47	$50	Varies
Colorado General Hospital [1]✦	Denver	State	265	4,585	100	..	R	17	12	April	No	Op	91	$20	Aug
Denver General Hospital ✦	Denver	CyCo	700	8,406	100	..	R	18	12	JanJuly	No	Op	57	$30	May
Mercy Hospital	Denver	Church	240	7,838	10	90	R	5	12	March	No	None	43	$25(l)	Sept
Presbyterian Hospital	Denver	Church	175	5,067	..	..	R	5	12	JanAprilJuly	No	Req	20	$25	Varies
St. Anthony Hospital	Denver	Church	220	4,089	10	100	R	3	12	July	No	Op	38	$20(e)	Fall
St. Joseph's Hospital	Denver	Church	300	7,397	75	..	R	8	12	July	No	Op	27	$50	Nov
St. Luke's Hospital [2]	Denver	Church	230	7,525	..	90	R	8	12	Varies	No	None	47	$25	Varies
CONNECTICUT															
Bridgeport Hospital	Bridgeport	NPAssn	400	10,176	32	..	R	10	12	July	No	None	39	$10	Dec
St. Vincent's Hospital	Bridgeport	Church	325	8,440	..	..	R	8	12	MarJuly	No	None	44	$25	Varies
Danbury Hospital	Danbury	NPAssn	210	3,243	33	100	R	4	12	July	No	None	36	$40	Nov
Hartford Hospital [3]✦	Hartford	NPAssn	862	19,345	46	100	R	12	12-24	Varies	No	None	52	No	Varies
Municipal Hospitals [3]✦	Hartford	City	349	3,817	100	..	R	12	12	March	No	Req	55	$50	Varies
St. Francis Hospital [3]✦	Hartford	Church	600	14,585	44	56	R	14	12	AprJuly	No	Req	38	No	JulyOct
Meriden Hospital	Meriden	NPAssn	140	2,812	24	43	R	4	12	July	No	None	46	$50	Varies
Middlesex Hospital	Middletown	NPAssn	167	3,507	33	67	R	4	12	Varies	No	None	38	$20(f)	Varies
New Britain General Hospital	New Britain	NPAssn	280	6,021	32	80	R	8	12	April	No	None	40	$30	Fall
Grace Hospital ✦	New Haven	NPAssn	270	6,090	30	70	R	12	12	Varies	No	Req	36	$10	Varies
Hospital of St. Raphael [1]	New Haven	Church	280	7,603	38	90	R	4	24	July	No	None	29	$20	Nov
New Haven Hospital [1,3]✦	New Haven	NPAssn	571	11,458	61	91	S	38	12-24	Varies	No	Req	57	No	Nov
Lawrence and Memorial Associated Hospitals	New London	NPAssn	248	3,735	50	..	R	4	12	July	No	None	41	$75	Varies
Norwalk General Hospital	Norwalk	NPAssn	211	5,417	25	95	R	6	12	July	No	None	57	$50	Nov
William W. Backus Hospital [1]	Norwich	NPAssn	160	3,193	39	100	R	2	12	Varies	No	Req	49	$125	April
Stamford Hospital	Stamford	NPAssn	306	5,577	33	100	R	9	18	JanJuly	No	Req	34	$45(f)	Varies
St. Mary's Hospital [3]	Waterbury	Church	384	10,657	27	90	R	6	12	July	No	Req	37	$25	Oct
Waterbury Hospital	Waterbury	NPAssn	369	7,207	26	100	R	8	12	July	No	Req	35	$25	Oct
DELAWARE															
Delaware Hospital	Wilmington	NPAssn	400	5,452	45	56	R	12	12	April	No	Req	44	$25	Varies
Memorial Hospital ✦	Wilmington	NPAssn	253	4,673	..	100	R	7	12	July	No	Req	39	$35	Nov
St. Francis Hospital [1]	Wilmington	Church	140	1,963	41	59	R	3	12	July	No	Req	42	$50	Dec
Wilmington General Hospital [1]	Wilmington	NPAssn	218	4,388	45	100	R	7	12	March	No	Req	34	$50	Dec
DISTRICT OF COLUMBIA															
Central Disp. and Emergency Hospital [1]✦	Washington	NPAssn	280	7,107	8	109	R	13	12	July	(15)	Req	50	$10	Nov
Doctors Hospital [1]	Washington	Corp	295	7,730	..	100	R	12	12	MarJuly	No	None	71	$50	SeptDec
Freedmen's Hospital [1,3]✦	Washington	USPHS	450	5,438	100	..	R	16	12	JulyOct	No	Req	40	$10	Nov
Gallinger Municipal Hospital [1]✦	Washington	City	1,446	16,989	100	..	R	30	12	MarJuly	No	Op	50	$10	Sept
Garfield Memorial Hospital [1,3]✦	Washington	NPAssn	437	9,089	25	75	R	13	12	MarJuly	No	Req	66	$10(f)	AprOct
Georgetown University Hospital [3]✦	Washington	NPAssn	274	6,224	24	76	R	10	12	AprJuly	(16)	Req	53	$10	Aug
George Washington University Hospital [1]✦	Washington	NPAssn	114	2,773	17	..	R	4	12	July	No	Req	51	$15	Nov
Providence Hospital [1]✦	Washington	Church	325	8,519	16	100	R	12	12	July	(17)	Req	32	No	Nov
St. Elizabeths Hospital, Medical and Surgical Department [3]	Washington	USPHS	456	2,201	100	..	R	12	12	JanJuly	(18)	Req	78	(b)	Varies
Sibley Memorial Hospital [1]✦	Washington	Church	349	8,837	..	..	R	11	12	FebJuly	No	None	50	$20	AugDec
United States Naval Hospital	Washington	Navy	205	2,177	100	..	R	12	12	Varies	(19)	None	78	(b)	Varies
Walter Reed General Hospital [3]✦	Washington	Army	1,421	8,467	100	..	R	12	12	July	No	Op	86	$60	March
Washington Sanitarium and Hospital, Takoma Park	Washington	Church	210	3,940	61	65	R	5	12	Varies	No	Req	33	$75(a)	Varies
FLORIDA															
Duval County Hospital ✦	Jacksonville	County	240	4,220	100	..	R	10	12	AprJuly	No	Req	36	$15	Sept
St. Luke's Hospital	Jacksonville	NPAssn	207	5,921	13	90	R	5	12	July	No	None	16	$25(e)	Varies
St. Vincent's Hospital	Jacksonville	Church	270	7,295	20	100	R	8	12	July	No	None	23	$30	Nov
James M. Jackson Memorial Hospital [1,3]✦	Miami	City	525	14,671	56	100	R	14	12	JanMarApr	No	Req	26	$20	Varies
Orange General Hospital [1]	Orlando	NPAssn	234	4,041	..	..	R	4	12	July	No	None	30	$50	Nov
Pensacola Hospital [1]	Pensacola	Church	190	4,635	..	..	R	5	12	July	No	None	24	$35	Varies
United States Naval Hospital	Pensacola	Navy	142	1,252	100	..	R	15	12	Varies	(20)	Req	67	(b)	Varies
GEORGIA															
Crawford W. Long Memorial Hospital [1]	Atlanta	NPAssn	250	10,018	2	100	R	4	12	July	No	None	24	$50	Nov
Georgia Baptist Hospital	Atlanta	Church	194	6,303	..	..	R	7	12	Varies	(21)	None	23	$35(g)	Nov
Grady Hospital [3]✦	Atlanta	City	696	21,797	100	..	R&S	34	12	April	No	Req	49	$10	Varies
Piedmont Hospital [1]✦	Atlanta	NPAssn	147	4,094	2	100	R	6	12	AprJuly	(21)	None	51	$35(g)	Varies
St. Joseph's Infirmary [1]✦	Atlanta	Church	152	4,710	38	63	R	4	12	July	No	Req	30	$50(f)	Nov
University Hospital [1]✦	Augusta	City	345	10,305	40	100	R	12	12	July	No	Req	32	$10	Nov
Columbus City Hospital [1]	Columbus	City	286	6,039	62	39	R	6	12	July	No	Req	18	$50	Sept
Emory University Hospital ✦	Emory Univ	NPAssn	270	6,764	16	100	R	10	12	AprJuly	No	Req	38	$25	July
Macon Hospital	Macon	CyCo	244	6,101	..	100	R	8	12	July	No	Req	15	$25	Nov
ILLINOIS															
St. Joseph's Hospital [1]	Alton	Church	150	4,687	1	..	M	2	12	July	No	None	17	$50	Varies
Alexian Brothers Hospital (r)	Chicago	Church	273	4,827	11	100	R	7	12	MarJuly	(22)	None	32	$75	MarJuly
American Hospital [1]	Chicago	NPAssn	194	4,003	60	100	R	4	12	July	No	Op	46	$25	April
Augustana Hospital [1]✦	Chicago	Church	300	6,132	15	25	M	12	12	Varies	No	None	30	No	Varies
Belmont Community Hospital [1]	Chicago	NPAssn	125	2,880	..	..	R	4	12	July	No	None	48	$50	Jan
Chicago Memorial Hospital [1]	Chicago	NPAssn	108	2,640	..	100	R	5	12	Varies	No	Req	55	$25	Varies
Columbus Hospital	Chicago	Church	170	4,557	18	100	R	5	12	July	No	None	79	$50(f)	Nov
Cook County Hospital [1]✦	Chicago	County	3,525	80,581	100	..	R&M	114	12	Quarterly	No	Req	23	$12	3 mo adv
Edgewater Hospital	Chicago	NPAssn	165	5,447	..	100	R	5	12	JanJuly	No	None	34	$50	DecJune
Englewood Hospital	Chicago	NPAssn	170	4,323	..	35	R	6	12	JanJuly	No	None	25	$25(l)	Varies
Evangelical Hospital [1]	Chicago	Church	240	8,128	..	..	R	6	12	Varies	No	None	23	$75	Dec
Garfield Park Community Hospital	Chicago	NPAssn	182	4,766	..	100	R	5	12	July	No	None	27	$50	Varies
Grant Hospital ✦	Chicago	NPAssn	277	6,840	5	100	R	9	12	July	No	Req	29	No	Nov
Henrotin Hospital ✦	Chicago	NPAssn	120	3,046	2	40	R	4	12	JanJuly	No	Req	57	$25	Varies

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Name of Hospital	Location	Control	Capacity	Total Patients Admitted	% Service Cases	% Priv. Pts. Worked Up by Interns	Type of Internship	Interns Appointed Annually	Length of Service in Months	Service Commences	Affiliated Service	Outpatient Percentage	Autopsy Percentage	Stipend per Month	Appointments Made
ILLINOIS—Continued															
Holy Cross Hospital [1]	Chicago	Church	161	4,623	..	..	R	6	12	July	No	None	38	$35	Varies
Hospital of St. Anthony de Padua	Chicago	Church	238	6,352	2	100	R	8	12	July	No	None	20	$50	Varies
Illinois Central Hospital	Chicago	NPAssn	290	5,368	51	15	R	9	12	Quarterly	No	Req	38	$30	Quarterly
Illinois Masonic Hospital [1]	Chicago	NPAssn	189	4,695	10	100	R	5	12	July	No	Req	35	$25	July
Jackson Park Hospital	Chicago	Corp	215	3,937	8	100	R	6	12	Varies	No	None	37	$25	Varies
Loretto Hospital [1]	Chicago	Church	142	3,825	..	85	R	6	12	Varies	No	None	42	$35	Varies
Lutheran Deaconess Home and Hospital [1]	Chicago	Church	218	5,805	18	13	R	7	12	July	No	None	28	$50	Nov
Mercy Hospital—Loyola University Clinics ✦	Chicago	Church	348	7,349	18	82	R	12	12	Varies	No	Req	44	No	Varies
Michael Reese Hospital [1✦]	Chicago	NPAssn	663	15,517	..	..	R(r)	25	12	Varies	(23)	Op	64	No	July
Mother Cabrini Memorial Hospital	Chicago	Church	140	4,172	22	100	R	4	12	July	No	None	36	$40	Varies
Mount Sinai Hospital [1✦]	Chicago	NPAssn	260	6,275	21	100	R	10	12	June	No	Op	47	No	Oct
Norwegian-American Hospital [1✦]	Chicago	NPAssn	215	6,549	1	99	R	6	12	July	No	None	29	$25	Nov
Passavant Memorial Hospital [1✦]	Chicago	NPAssn	255	6,050	19	100	R(j)	10	12	JanJulyOct	No	Req	75	No	6 mo adv
Presbyterian Hospital [1✦]	Chicago	Church	412	11,566	..	100	R&S	28	12	(k)	No	Op	58	No	Varies
Provident Hospital [1✦]	Chicago	NPAssn	165	3,852	60	100	R	8	12	July	No	Req	49	$10	Jan
Ravenswood Hospital	Chicago	NPAssn	203	5,652	..	..	R	7	12	July	No	None	27	$75(f)	Nov
Research and Educational Hospital [1✦]	Chicago	State	467	5,604	100	..	R	18	12	Varies	No	Op	91	No	Sept
Rosalind Community Hospital	Chicago	NPAssn	129	3,819	..	..	R	4	12	JanJuly	No	None	23	$75	JanJuly
St. Anne's Hospital	Chicago	Church	360	8,009	..	..	R	8	12	Varies	No	None	29	$30	Varies
St. Bernard's Hospital	Chicago	Church	242	6,904	..	..	R	8	12	July	No	None	50	$50	July
St. Elizabeth's Hospital	Chicago	Church	307	8,866	5	40	R	6	12	July	No	None	17	$50	Nov
St. Joseph Hospital ✦	Chicago	Church	265	4,921	12	..	R	8	12	Quarterly	No	Req	30	No	Varies
St. Luke's Hospital [2✦]	Chicago	NPAssn	536	14,591	15	100	R	35	12	JanJuly	No	Req	60	No	JanNov
St. Mary of Nazareth Hospital	Chicago	Church	324	8,864	5	8	R	8	12	Quarterly	No	None	35	$30	Quarterly
Swedish Covenant Hospital [1]	Chicago	Church	225	5,475	..	100	R	7	12	Quarterly	No	None	35	$40	Quarterly
United States Marine Hospital [3]	Chicago	USPHS	301	2,750	100	..	R	7	12	July	(24)	Op	82	$67.50	Varies
University Hospital	Chicago	NPAssn	121	4,075	38	100	R	4	12	July	No	None	28	$15	Jan
University of Chicago Clinics [1.3✦]	Chicago	NPAssn	660	11,554	..	100	S	49	12	Quarterly	No	Req	81	No	6 mo adv
Walther Memorial Hospital [1]	Chicago	Church	196	5,767	10	5	R	4	12	Varies	No	None	40	$25	Varies
Wesley Memorial Hospital [1✦]	Chicago	Church	585	9,831	..	..	R	16	12	Quarterly	No	None	19	No	Quarterly
Women and Children's Hospital [2✦]	Chicago	NPAssn	121	2,341	39	100	R	6	12	JanJuly	No	Req	55	$25	Varies
Woodlawn Hospital [1]	Chicago	NPAssn	145	4,031	..	100	R	4	12	JanJuly	No	None	38	$50	JanOct
St. Mary's Hospital [1]	East St. Louis	Church	268	4,310	..	98	R	7	12	July	No	None	29	$25(f)	Nov
Evanston Hospital ✦	Evanston	NPAssn	266	8,148	12	100	R	18	12	JanMaySept	No	Req	80	No	SprFall
St. Francis Hospital ✦	Evanston	Church	312	7,083	..	100	R	10	12	June	No	None	39	$30	Nov
Little Company of Mary Hospital [1✦]	Evergreen Park	Church	243	7,384	..	..	R	7	12	July	No	None	28	$25	Jan
United States Naval Hospital	Great Lakes	Navy	280	3,892	100	..	R	16	12	Varies	(25)	Op	100	(b)	Varies
Moline Public Hospital [1]	Moline	City	200	4,563	1	100	R	3	12	July	No	None	17	$75(f)	Fall
Oak Park Hospital [1]	Oak Park	Church	186	5,507	..	..	R	6	12	Feb	No	None	29	$50	Varies
West Suburban Hospital	Oak Park	NPAssn	412	9,383	..	100	R	12	12	AprJulOct	No	None	34	$25	Varies
Methodist Hospital of Central Illinois [1✦]	Peoria	Church	240	6,034	..	100	R	8	12	July	No	None	29	$25	Jan
St. Francis Hospital ✦	Peoria	Church	400	10,223	40	..	R	10	12	July	No	None	34	$25	Varies
St. Mary's Hospital	Quincy	Church	215	3,608	55	45	R	3	12	July	No	None	18	$25	Varies
St. Anthony's Hospital	Rockford	Church	250	7,037	60	..	R	2	12	Varies	No	None	48	$30	Varies
INDIANA															
St. Catherine's Hospital	East Chicago	Church	340	8,293	..	..	R	7	12	July	No	None	17	$50	Nov
Lutheran Hospital	Fort Wayne	Church	204	4,161	1	30	R	3	12	Jan	No	None	26	$75(i)	Varies
St. Joseph Hospital	Fort Wayne	Church	300	5,800	..	20	R	5	12	JanJuly	No	None	..	$50	Varies
Methodist Hospital [1]	Gary	Church	140	4,580	..	60	R	4	12	July	No	None	29	$65-75	Varies
St. Mary's Mercy Hospital	Gary	Church	265	6,955	..	..	R	4	12	Varies	No	None	22	$60(q)	Varies
St. Margaret Hospital ✦	Hammond	Church	265	7,153	..	95	R	10	12	JanJulySept	No	None	19	$70	JanOct
Indianapolis City Hospital [2✦]	Indianapolis	City	724	10,965	100	..	R	33	12	Varies	No	Req	56	$10	Varies
Indiana University Medical Center [1✦]	Indianapolis	State	604	10,056	85	100	R	28	12	July	No	Req	50	$12.50	Nov
Methodist Hospital ✦	Indianapolis	Church	600	15,855	6	100	R	22	12	Varies	No	None	37	$25	Varies
St. Vincent's Hospital	Indianapolis	Church	326	7,382	..	..	R	12	12	JanJuly	No	None	17	$50	Nov
St. Elizabeth Hospital	La Fayette	Church	280	6,100	5	100	R	5	12	July	No	None	19	$45(s)	Nov
Ball Memorial Hospital [1✦]	Muncie	NPAssn	242	5,685	6	94	R	8	12	July	No	None	47	$30	Varies
Epworth Hospital [1✦]	South Bend	NPAssn	192	6,031	4	33	R	4	12	July	No	Req	31	$50	Jan
St. Joseph's Hospital [1]	South Bend	Church	192	4,994	6	100	R	4	12	Varies	No	Req	40	$35(i)	Varies
St. Anthony's Hospital [1]	Terre Haute	Church	202	3,219	..	..	R	3	12	July	No	None	..	$30	Varies
IOWA															
Mercy Hospital	Cedar Rapids	Church	152	3,405	..	..	R	2	12	July	No	None	22	$25	Varies
Mercy Hospital	Council Bluffs	Church	150	3,115	..	..	R	4	12	July	No	None	28	$25	Nov
Mercy Hospital	Davenport	Church	187	4,522	..	100	R	3	12	Varies	No	None	16	$35-50	Varies
Broadlawns, Polk County Public Hospital [1]	Des Moines	County	148	4,408	100	..	R	10	12	Varies	No	Req	36	$25	Varies
Iowa Lutheran Hospital [1]	Des Moines	Church	145	3,710	4	100	R	4	12	Varies	(38)	Req	15	$50	Fall
Iowa Methodist Hospital [1]	Des Moines	Church	279	7,876	..	100	R	8	12	March	Op	54		$35(m)	Nov
Mercy Hospital [1]	Des Moines	Church	187	4,427	..	..	R	6	12	July	No	None	22	$25	Nov
University Hospitals [1.3✦]	Iowa City	State	954	21,564	95	5	R	23	12	March	No	Req	58	$100 yr	Varies
St. Joseph Mercy Hospital	Sioux City	Church	220	5,531	..	..	R	4	12	July	No	Req	35	$25	Jan
KANSAS															
Providence Hospital [1]	Kansas City	Church	105	2,534	..	100	R	3	12	July	No	None	57	$35	Oct
St. Margaret's Hospital	Kansas City	Church	250	4,319	12	100	R	7	12	July	No	None	59	$25	Sept
University of Kansas Hospitals [1.3✦]	Kansas City	State	375	6,643	70	..	R	15	12	June	(27)	Req	72	$15	Nov
St. Francis Hospital [1✦]	Wichita	Church	350	8,751	..	100	R	10	12	July	(28)	Req	43	$40	Nov
Wesley Hospital [1]	Wichita	Church	267	5,992	..	..	R	6	12	July	(29)	None	26	$40(s)	Nov
Wichita Hospital [1]	Wichita	Church	125	3,280	..	..	R	4	12	July	(28)	None	31	$40	Dec
KENTUCKY															
St. Elizabeth Hospital	Covington	Church	323	5,679	24	..	R	6	12	July	No	Req	17	$25	Nov
Good Samaritan Hospital	Lexington	Church	283	7,762	85	95	R	4	12	July	No	None	33	$25	Dec
St. Joseph Hospital ✦	Lexington	Church	243	5,959	32	88	R	4	12	July	No	Req	48	$25	Nov
Kentucky Baptist Hospital	Louisville	Church	150	5,363	..	100	R	5	12	April	(30)	None	27	$25	Nov
Louisville General Hospital [1.3✦]	Louisville	City	587	10,886	100	..	R	24	12	July	(31)	Req	29	$10.17	Sept
Norton Memorial Infirmary	Louisville	NPAssn	165	4,582	10	70	R	6	12	July	(30)	Req	29	$25	Varies
St. Anthony's Hospital	Louisville	Church	163	3,448	4	..	R	4	12	July	(30)	None	20	$10-25	Feb
St. Joseph Infirmary ✦	Louisville	Church	365	9,286	11	..	R	8	12	July	(30)	None	21	$15(e)	Jan
SS. Mary and Elizabeth Hospital [1]	Louisville	Church	185	4,322	..	..	R	4	12	July	No	None	23	$40	Varies

Numerical and other references will be found on page 1321.

Name of Hospital	Location	Control	Capacity	Total Patients Admitted	% Service Cases	% Priv. Pts. Worked Up by Interns	Type of Internship	Interns Appointed Annually	Length of Service in Months	Service Commences	Affiliated Service	Outpatient Service	Autopsy Percentage	Stipend per Month	Appointments Made
LOUISIANA															
Charity Hospital of Louisiana [1,3]✦	New Orleans	State	3,116	58,272	100	..	R	125	12	March	No	Req	43	$10	Fall
Hotel Dieu, Sisters' Hospital	New Orleans	Church	283	10,720	..	..	R	15	12	MarJuly	No	None	32	$50	Varies
Mercy Hospital—Soniat Memorial	New Orleans	Church	134	3,444	..	..	R	4	12	July	No	None	36	$50	Nov
Southern Baptist Hospital✦	New Orleans	Church	354	15,970	16	83	R	17	12	July	No	None	30	$30(e)	Nov
Touro Infirmary [1]✦	New Orleans	NPAssn	440	12,569	..	..	R	23	12	Varies	No	Req	69	$10	Varies
United States Marine Hospital [3]	New Orleans	USPHS	572	5,412	100	..	R	12	12	July	(32)	Req	59	$62.50	Varies
Highland Sanitarium	Shreveport	Corp	116	3,176	..	..	R	4	12	July	No	None	41	$50	Jan
North Louisiana Sanitarium	Shreveport	Corp	114	3,121	..	100	R	3	12	Varies	No	Req	56	$50	Varies
T. E. Schumpert Memorial Sanitarium	Shreveport	Church	167	3,202	..	..	R	3	12	Varies	No	None	16	$50	Varies
Shreveport Charity Hospital [1]✦	Shreveport	State	864	15,491	100	..	R	34	12	July	No	Req	48	$20	Nov
Tri-State Hospital [1]	Shreveport	Corp	119	4,205	..	75	R	4	12	July	No	None	37	$50(e)	Varies
MAINE															
Eastern Maine General Hospital [1]	Bangor	NPAssn	243	5,244	40	10	R	5	12	July	No	Req	21	$50	Varies
Central Maine General Hospital [1]	Lewiston	NPAssn	232	4,285	68	32	R	6	12	MarJuly	No	Op	49	No	Varies
St. Mary's General Hospital [1]	Lewiston	Church	175	3,093	37	21	R	3	12	July	No	None	42	$20	Nov
Maine General Hospital	Portland	NPAssn	281	6,087	55	35	R	10	12	AprJuly	No	Req	29	No	JanJune
MARYLAND															
United States Naval Hospital	Annapolis	Navy	192	1,876	100	..	R	6	12	Varies	...	None	67	(b)	Varies
Baltimore City Hospitals [1,3]✦	Baltimore	City	1,385	7,438	100	..	RMS	25	12	Varies	No	Req	54	No	Varies
Bon Secours Hospital✦	Baltimore	Church	190	3,597	20	100	R	4	12	MarDec	No	Req	39	$20	Varies
Church Home and Infirmary [1]✦	Baltimore	Church	191	4,064	27	100	R&S	7	12	Varies	No	Req	47	$15	Varies
Franklin Square Hospital [1]✦	Baltimore	NPAssn	237	4,669	50	100	R&S	12	12	FebJuly	No	Req	28	$10(f)	Nov
Hospital for Women✦	Baltimore	NPAssn	162	3,220	29	100	R	7	12	Oct	No	Req	28	No	April
Johns Hopkins Hospital [1,3]✦	Baltimore	NPAssn	969	16,680	61	100	S	76	12	Varies	No	Req	74	No	Varies
Maryland General Hospital [3]✦	Baltimore	Church	264	5,116	26	100	R	10	12	July	No	Req	18	$10	Varies
Mercy Hospital✦	Baltimore	Church	332	8,182	..	..	R	15	12	April	No	Req	32	No	Sept
Provident Hospital and Free Dispensary✦	Baltimore	NPAssn	148	2,335	75	75	R	7	12	July	No	Req	20	$10	Varies
St. Agnes' Hospital [1]✦	Baltimore	Church	248	4,587	32	100	R	6	12	July	No	Req	25	$5	Nov
St. Joseph's Hospital [2]✦	Baltimore	Church	299	6,554	52	100	R	8	12	July	No	Req	19	$5	Nov
Sinai Hospital [1,3]✦	Baltimore	NPAssn	300	5,481	35	100	M&S	18	12	July	No	Req	38	No	Nov
South Baltimore General Hospital [1]✦	Baltimore	NPAssn	170	3,448	24	100	R	6	12	Sept	No	Req	25	$75	April
Union Memorial Hospital✦	Baltimore	NPAssn	350	7,561	14	100	R	16	12	July	No	Req	31	No	Nov
United States Marine Hospital [3]	Baltimore	USPHS	531	5,597	100	..	R	12	12	July	(33)	Op	68	$67.50	Dec
University Hospital [1,3]✦	Baltimore	State	485	9,289	47	100	R&S	24	12	April	(34)	Req	48	No	Sept
West Baltimore General Hospital✦	Baltimore	NPAssn	174	3,991	39	100	R	7	12	July	(35)	Req	54	$25	Nov
MASSACHUSETTS															
Beverly Hospital✦	Beverly	NPAssn	217	3,114	51	..	R	4	12	July-Sept	No	Req	83	No	Varies
Beth Israel Hospital✦	Boston	NPAssn	215	6,165	45	55	M	12	12	(k)	No	Req	55	No	Sept
Boston City Hospital [1,3]✦	Boston	City	2,500	43,181	100	..	S	101	12-24	Varies	No	Req	70	No	Jan
Carney Hospital✦	Boston	Church	240	5,111	44	99	R&S	10	12	Varies	No	Req	23	No	Oct
Faulkner Hospital	Boston	NPAssn	183	3,354	5	..	R	3	12	JuneOct	No	Req	49	No	Sept
Massachusetts General Hospital [1,3]✦	Boston	NPAssn	502	7,022	100	..	S	36	12	Varies	(36)	Req	62	No	Varies
Massachusetts Memorial Hospitals [1,3]✦	Boston	NPAssn	432	6,895	..	100	S	18	12	April	No	Req	76	No	Sept
New England Hospital for Women and Children [2]	Boston	NPAssn	260	3,667	53	24	R	8	12	JanJuly	No	Req	56	No	JanJuly
Peter Bent Brigham Hospital [3]✦	Boston	NPAssn	247	5,173	..	..	S	25	12	Monthly	(37)	Req	68	No	Varies
St. Elizabeth's Hospital	Boston	Church	302	5,422	21	78	R	6	12	Varies	No	Req	17	No	Varies
United States Marine Hospital [3]	Boston	USPHS	336	2,076	100	..	R	6	12	July	No	Op	49	$62.50	July
Cambridge City Hospital	Cambridge	City	400	6,533	77	..	R	8	12	Varies	No	Req	23	$10	Feb
Cambridge Hospital [1]✦	Cambridge	NPAssn	200	5,557	27	..	R	4	12	AprJuly	No	Req	30	No	Sept
Chelsea Memorial Hospital	Chelsea	Corp	115	2,133	40	20	R	2	12	JuneDec	No	None	30	$50	AprOct
United States Naval Hospital	Chelsea	Navy	461	3,503	100	..	R	10	12	June	No	None	57	(b)	Varies
Union Hospital [1]	Fall River	NPAssn	186	3,514	45	90	R	3	12	JuneJuly	No	Req	25	$62.50	Dec
Burbank Hospital [1]	Fitchburg	Corp	236	4,109	55	..	R	4	12	Varies	No	Req	33	$25	Varies
Haverhill Municipal Hospital (Hale)	Haverhill	City	198	4,730	42	..	R	2	12	July	No	None	20	$25	Sept
Holyoke Hospital	Holyoke	NPAssn	144	2,434	..	..	R	3	12	July	No	Req	14	$25	Jan
Providence Hospital	Holyoke	Church	200	3,662	11	89	R	3	12	JanJune	No	None	..	$50	DecMay
Lawrence General Hospital	Lawrence	NPAssn	214	3,107	38	..	R	3	12	July	No	Req	56	$10	Nov
Lowell General Hospital	Lowell	NPAssn	188	3,187	39	..	R	3	12	July	No	Req	25	$25	Fall
St. John's Hospital	Lowell	Church	200	4,088	55	10	R	4	12	July	No	Req	30	$20	Nov
St. Joseph's Hospital	Lowell	Church	133	3,057	75	..	R	2	12	June	No	Req	17	$18	Nov
Lynn Hospital	Lynn	NPAssn	223	5,922	28	..	R	6	12	July	No	Req	32	$25	Oct
St. Luke's Hospital	New Bedford	NPAssn	339	7,150	..	..	R	6	12	July	No	Req	18	No	Varies
Newton Hospital	Newton	NPAssn	304	5,372	47	3	R	6	12	June	No	Req	41	No	Fall
House of Mercy Hospital	Pittsfield	NPAssn	235	3,989	20	2	R	3	12	July	No	Req	29	$40	Nov
St. Luke's Hospital [1]	Pittsfield	Church	189	3,559	21	1	R	3	12	JanJuly	No	None	24	$50	Nov
Quincy City Hospital [1]	Quincy	City	324	8,308	65	50	R	6	12	JanJuly	No	None	36	$50	June
Salem Hospital [1]	Salem	NPAssn	285	4,794	37	10	R	6	12	July	(38)	Req	42	$25	Nov
Mercy Hospital	Springfield	Church	365	7,347	30	90	R	6	12	JuneJuly	No	None	21	$25	Sept
Springfield Hospital [1]	Springfield	NPAssn	285	6,586	35	75	R	12	12-24	July	(39)	Req	41	No	Varies
Wesson Memorial Hospital [1]	Springfield	NPAssn	116	2,686	29	..	R	5	18	Varies	(40)	None	19	$25	Varies
Waltham Hospital [1]	Waltham	NPAssn	218	2,885	41	90	R	4	12	July	No	Req	39	$25	Nov
Memorial Hospital✦	Worcester	NPAssn	215	6,355	..	100	R	10	12	Varies	No	Req	41	No	Varies
St. Vincent Hospital	Worcester	Church	290	5,307	21	95	R	6	12	Varies	No	None	..	$20	Varies
Worcester City Hospital [3]✦	Worcester	City	550	10,015	85	97	R	18	12	Varies	No	Req	30	No	July
Worcester Hahnemann Hospital [1]	Worcester	NPAssn	140	2,830	9	..	R	4	12	July	No	None	33	$35	Mar
MICHIGAN															
University Hospital [1,3]✦	Ann Arbor	State	1,235	17,551	100	..	R	38	12	FebJuly	No	Req	66	No	Aug
Leila Y. Post Montgomery Hospital	Battle Creek	Church	161	4,136	5	100	R	3	12	Feb	No	Req	23	$50	Sept
Mercy Hospital [1]	Bay City	Church	140	3,826	..	..	R	3	12	July	No	None	19	$50	Varies
City of Detroit Receiving Hospital [3]✦	Detroit	City	649	18,506	100	..	R	32	12	Varies	(41)	Req	34	$50	Varies
Evangelical Deaconess Hospital [1]	Detroit	Church	225	6,728	34	..	R	5	12	July	No	Req	20	$100	Nov
Grace Hospital [1]✦	Detroit	NPAssn	605	17,367	20	100	R	36	12	Varies	No	Req	34	$25	Nov
Harper Hospital✦	Detroit	NPAssn	685	18,388	9	100	R	36	12	Varies	(42)	Op	38	No	Varies
Henry Ford Hospital [3]✦	Detroit	NPAssn	595	15,268	94	100	R	28	12	Varies	No	Op	51	$125(a)	Varies
Mount Carmel Mercy Hospital	Detroit	Church	385	10,875	..	100	R	10	12	Varies	No	Req	28	$100	Varies
Providence Hospital✦	Detroit	Church	424	11,632	..	..	R	17	12	MarJuly	No	None	57	$125(a)	SeptDec

Numerical and other references will be found on page 1321.

Name of Hospital	Location	Control	Capacity	Total Patients Admitted	% Service Cases	% Priv. Pts. Worked Up by Interns	Type of Internship	Interns Appointed Annually	Length of Service in Months	Service Commences	Affiliated Service	Outpatient Service	Autopsy Percentage	Stipend per Month	Appointments Made
MICHIGAN—Continued															
St. Joseph's Mercy Hospital	Detroit	Church	240	7,150	2	..	R	6	12	July	No	Req	25	$50	Varies
St. Mary's Hospital [4]	Detroit	Church	389	9,105	26	100	R	12	12	July	No	Req	31	$75	July
United States Marine Hospital [3]	Detroit	USPHS	291	2,381	100	..	R	2	12	July	(43)	Req	64	$67.50	July
Eloise Hospital and Infirmary—William J. Seymour Hospital [14]	Eloise	County	607	9,757	99	..	R	24	12	MarJuly	(41)	Req	47	$50	Dec
Hurley Hospital [4]	Flint	City	382	9,995	..	100	R	10	12	Varies	No	None	29	$75(a)	Varies
Blodgett Memorial Hospital [1-4]	Grand Rapids	NPAssn	170	4,216	19	100	R	5	12	JanJuly	No	Op	46	$20	Varies
Butterworth Hospital [4]	Grand Rapids	NPAssn	272	6,594	10	100	R	6	12	April	No	None	50	$20	Varies
St. Mary's Hospital [4]	Grand Rapids	Church	281	6,713	6	..	R	6	12	July	No	Req	25	$25	Fall
Highland Park General Hospital [1]	Highland Park	City	200	5,869	5	100	R	8	12	July	No	Req	17	$100	Oct
W. A. Foote Memorial Hospital [1]	Jackson	City	156	5,109	..	..	R	4	12	July	No	Req	30	$50	Fall
Mercy Hospital [1]	Jackson	Church	150	3,338	..	27	R	3	12	July	No	None	37	$60	July
Edward W. Sparrow Hospital [1]	Lansing	NPAssn	163	5,494	15	100	R	6	12	Varies	(44)	None	53	$65(f)	Sept
St. Lawrence Hospital	Lansing	Church	199	5,745	..	..	R	6	12	Varies	(45)	None	61	$60	Fall
Pontiac General Hospital	Pontiac	City	210	5,151	..	100	R	3	12	July	No	Req	49	$75	July
Saginaw General Hospital	Saginaw	NPAssn	152	4,170	..	100	R	4	12	FebJuly	No	Req	30	$45	Varies
St. Mary's Hospital [1]	Saginaw	Church	200	5,271	3	..	R	4	12	Varies	No	None	22	$75	Varies
MINNESOTA															
St. Luke's Hospital [4]	Duluth	NPAssn	270	6,805	..	100	R	9	12	Varies	(46)	Req	71	$20	Varies
St. Mary's Hospital [4]	Duluth	Church	290	7,240	..	100	R	9	12	April	(46)	Req	72	$20	Varies
Asbury Hospital [1]	Minneapolis	Church	158	4,141	..	..	R	6	12	JanJuly	No	None	31	$50	Varies
Minneapolis General Hospital [1-4]	Minneapolis	City	671	11,300	100	..	S	30	12	Ev. 9 mo.	No	Req	57	$15	Oct
Northwestern Hospital [1]	Minneapolis	NPAssn	280	5,420	..	..	R	8	12	July	No	None	34	$50	Varies
St. Barnabas Hospital [1]	Minneapolis	NPAssn	165	4,680	..	100	R	4	12	July	No	None	74	$50	Varies
St. Mary's Hospital [1]	Minneapolis	Church	315	7,778	..	100	R	10	12	Varies	No	None	27	$50	Varies
Swedish Hospital [1]	Minneapolis	NPAssn	200	9,050	..	..	R	6	12	July	No	None	21	$25	Fall
University Hospitals [1-3-4]	Minneapolis	State	500	8,850	100	..	S	27	12	April	No	Req	72	No	Varies
Ancker Hospital [3-4]	St. Paul	CyCo	905	10,979	100	..	R	23	12	Varies	No	Op	39	$20	Varies
Bethesda Hospital [1]	St. Paul	Church	166	5,559	..	100	R	6	12	July	(47)	None	48	$50	Nov
Charles T. Miller Hospital	St. Paul	NPAssn	250	6,532	17	97	R	7	12	Varies	(48)	Req	56	$25	Varies
St. Joseph's Hospital [1]	St. Paul	Church	282	8,677	..	15	R	10	12	July	(47)	Req	47	$25	Nov
MISSOURI															
St. Louis County Hospital [3-4]	Clayton	County	210	3,700	98	..	R	6	12	July	No	Req	62	$25	Nov
Kansas City General Hospital [3-4]	Kansas City	City	640	10,183	100	..	R	28	12	April	No	Req	74	$25	Aug
Kansas City General Hospital No. 2 [1-3]	Kansas City	City	249	3,504	100	..	R	12	12	July	No	Req	50	$25	Dec
Menorah Hospital	Kansas City	NPAssn	162	4,114	..	..	R	6	12	July	No	Req	39	$50	Nov
Research Hospital	Kansas City	NPAssn	211	6,135	..	100	R	6	12	Varies	No	None	58	$25	Varies
St. Joseph Hospital [4]	Kansas City	Church	281	7,447	10	..	R	9	12	Varies	No	None	62	$25	Varies
St. Luke's Hospital [4]	Kansas City	Church	263	6,966	..	100	R	5	12	July	No	None	74	$25	Varies
St. Mary's Hospital [1-4]	Kansas City	Church	175	5,203	18	100	R	5	12	Varies	No	None	61	$50	Varies
Trinity Lutheran Hospital [1]	Kansas City	Church	135	3,516	..	100	R	4	12	July	No	None	50	$25(o)	Jan
Missouri Methodist Hospital [1]	St. Joseph	Church	170	4,094	1	98	R	5	12	July	No	None	25	$50	JanSept
St. Joseph's Hospital	St. Joseph	Church	168	3,003	16	100	R	4	12	July	No	None	36	$50	Nov
Barnes Hospital [1-3-4]	St. Louis	Church	425	11,723	34	100	S	29	12&18	AprJuly	(49)	Req	60	No	Dec
De Paul Hospital [4]	St. Louis	Church	285	11,059	25	100	R	9	12	July	No	Req	27	$25	Nov
Evangelical Deaconess Home and Hospital	St. Louis	Church	219	7,889	2	100	R	8	12	Varies	No	None	23	$25(f)	Varies
Homer G. Phillips Hospital [1-4]	St. Louis	City	828	11,250	100	..	R	30	12	July	No	Req	35	$10(g)	Nov
Jewish Hospital [1-4]	St. Louis	NPAssn	297	7,304	21	100	R	11	12	July	(50)	Req	38	$15	Oct
Lutheran Hospital	St. Louis	Church	180	5,228	3	97	R	6	12	July	No	None	31	$25(h)	Jan
Missouri Baptist Hospital [4]	St. Louis	Church	430	6,517	..	..	R	8	12	July	No	None	22	$25	Fall
St. Anthony's Hospital [4]	St. Louis	Church	250	5,288	37	100	R	6	12	MarJuly	(51)	Op	30	$25	Nov
St. John's Hospital	St. Louis	Church	362	6,847	..	100	R	12	12	July	(50)	Req	47	$20	Sept
St. Louis City Hospital [1-3-4]	St. Louis	City	1,597	15,451	100	..	R	64	12	July	(52)	Req	58	$10(g)	Varies
St. Luke's Hospital [4]	St. Louis	Church	209	4,578	14	100	R	9	12	June	(50)	Req	38	$20	Nov
St. Mary's Group of Hospitals [4]	St. Louis	Church	744	11,666	68	100	R	26	12	July	(53)	Req	52	No	Nov
St. Mary's Infirmary	St. Louis	Church	162	2,232	73	..	R	3	12	July	No	None	41	$25	Varies
MONTANA															
Murray Hospital	Butte	Corp	120	2,722	..	100	R	3	12	July	No	Req	23	$75(l)	Varies
St. James Hospital	Butte	Church	180	3,628	20	..	R	3	12	July	No	Req	25	$50	Jan
NEBRASKA															
Bryan Memorial Hospital [1]	Lincoln	Church	120	1,936	..	..	R	3	12	July	No	None	46	$25	Varies
Lincoln General Hospital [1]	Lincoln	City	230	3,526	..	..	R	4	12	Varies	No	None	40	$25	Varies
St. Elizabeth Hospital	Lincoln	Church	200	3,965	..	..	R	4	12	July	No	None	32	$30	Sept
Bishop Clarkson Memorial Hospital [1-4]	Omaha	Church	150	3,823	..	..	R	4	12	June	No	None	50	$25	Nov
Creighton Memorial St. Joseph's Hosp. [3-4]	Omaha	Church	465	9,538	9	75	R	12	12	March	No	Req	26	$20(e)	Nov
Immanuel Deaconess Institute	Omaha	Church	155	3,602	..	100	R	6	12	June	No	None	21	$25	Fall
Nebraska Methodist Episcopal Hospital	Omaha	Church	200	4,858	..	..	R	4	12	Varies	No	None	49	$25(e)	Varies
St. Catherine's Hospital	Omaha	Church	210	3,853	..	100	R	4	12	July	No	None	21	$ 5	Nov
University of Nebraska Hospital [4]	Omaha	State	230	3,264	100	..	R	12	12	April	No	Req	84	$25	Oct
NEW HAMPSHIRE															
Margaret Pillsbury General Hospital	Concord	NPAssn	118	2,073	35	..	R	2	12	July	No	None	36	$50	July
Mary Hitchcock Memorial Hospital [4]	Hanover	NPAssn	196	5,281	..	100	R	8	12	Ev. 6 wks	No	Req	84	$8.33	Nov
United States Naval Hospital	Portsmouth	Navy	152	578	100	..	R	4	12	Varies	...	None	15	(b)	Varies
NEW JERSEY															
Atlantic City Hospital [4]	Atlantic City	NPAssn	300	5,825	64	95	R	8	12	July	No	Req	56	$25	Varies
Bayonne Hospital and Dispensary [14]	Bayonne	NPAssn	250	4,304	57	90	R	6	12	Quarterly	No	Req	43	$25	Varies
Cooper Hospital [4]	Camden	NPAssn	375	6,865	56	100	R	12	12	July	No	Req	49	$10	Nov
West Jersey Homeopathic Hospital [4]	Camden	NPAssn	320	5,775	70	100	R	8	12	June	No	Req	27	$50	Oct
East Orange General Hospital	East Orange	NPAssn	150	3,172	47	..	R	4	12	July	No	Req	27	$25	Varies
Alexian Brothers Hospital (v)	Elizabeth	Church	168	2,634	55	92	R	4	12	July	(54)	Req	29	$50	Mar
Elizabeth General Hospital and Dispensary [1]	Elizabeth	NPAssn	226	5,301	47	100	R	10	12	July	No	Req	21	$25	Varies
St. Elizabeth Hospital	Elizabeth	Church	266	4,716	48	59	R	7	12	July	No	Req	17	$50	Nov
Englewood Hospital [1-3]	Englewood	NPAssn	238	4,805	47	..	R	5	12	Varies	No	Op	40	$20	Varies
Hackensack Hospital [1]	Hackensack	NPAssn	292	8,874	50	75	R	10	12	July	No	Req	30	$25	Varies

Numerical and other references will be found on page 1321.

Name of Hospital	Location	Control	Capacity	Total Patients Admitted	% Service Cases	% Priv. Pts. Worked Up by Interns	Type of Internship	Interns Appointed Annually	Length of Service in Months	Service Commences	Affiliated Service	Outpatient Service	Autopsy Percentage	Stipend per Month	Appointments Made
NEW JERSEY—Continued															
St. Mary's Hospital [1]	Hoboken	Church	400	5,178	88	12	R	11	12	Quarterly	No	Req	27	$25	Varies
Christ Hospital [1]	Jersey City	Church	246	5,135	40	..	R	12	12	Varies	No	Req	49	$50	Varies
Jersey City Hospital [1,3]✦	Jersey City	City	900	17,940	87	100	R	80	12-24	Varies	(55)	Req	22	No	Varies
St. Francis Hospital [1]	Jersey City	Church	242	3,718	6	15	R	7	12	JanJuly	(56)	Req	20	$30	Varies
Monmouth Memorial Hospital [1,3]	Long Branch	NPAssn	244	5,696	60	40	R	9	12	July	(57)	Req	25	$25	Varies
Mountainside Hospital [3]✦	Montclair	NPAssn	372	5,931	35	90	R	8	12	Varies	No	Req	34	$15	Varies
All Souls Hospital	Morristown	Church	145	2,301	27	85	R	3	12	JulySept	No	Req	30	$35	Varies
Morristown Memorial Hospital	Morristown	NPAssn	155	3,427	52	50	R	4	12	Varies	No	Req	28	$40	Varies
Burlington County Hospital [1]✦	Mount Holly	NPAssn	145	2,631	58	100	R	4	12	July	(58)	Req	55	$100	Feb
Fitkin Memorial Hospital	Neptune	NPAssn	190	4,679	51	90	R	6	12	July	No	Req	26	$25	Varies
Hospital of St. Barnabas and for Women and Children [1]	Newark	Church	252	5,385	40	80	R	6	12	July	No	Req	49	$30	Oct
Newark Beth Israel Hospital [1,3]✦	Newark	NPAssn	455	11,429	26	100	R	32	12	Varies	No	Req	44	$15	Varies
Newark City Hospital [1,3]✦	Newark	City	740	14,952	100	..	R	24	12	Varies	No	None	25	$20	Varies
Newark Memorial Hospital [1]	Newark	NPAssn	165	2,733	34	50	R	4	12	July	No	Req	29	$25	Fall
St. James Hospital	Newark	Church	150	2,698	54	46	R	2	12	July	No	Op	28	$50	July
St. Michael's Hospital	Newark	Church	350	5,983	29	100	R	7	12	July	(56)	Req	22	$25	Nov
St. Peter's General Hospital	New Brunswick	Church	227	4,425	34	..	R	6	12	July	No	Req	..	$35	Varies
Orange Memorial Hospital	Orange	NPAssn	430	7,882	32	..	R	8	12	April	No	Req	..	$25	Varies
St. Mary's Hospital	Orange	Church	150	2,720	17	..	R	4	12	July	No	Req	23	$35	July
Passaic General Hospital [1]	Passaic	NPAssn	275	4,339	29	..	R	4	12	July	No	Req	16	$25	Nov
St. Mary's Hospital [1]	Passaic	Church	219	4,892	35	..	R	4	12	July	No	Req	27	$30	July
Nathan and Miriam Barnert Mem. Hosp. [1]	Paterson	NPAssn	145	3,267	50	10	R	5	12	MarJuly	No	Req	22	$30(f)	Oct
Paterson General Hospital	Paterson	NPAssn	328	8,812	45	..	R	9	12-24	AprJuly	No	Op	29	$12.50(c)	Varies
St. Joseph Hospital	Paterson	Church	468	8,478	41	25	R	10	24	July	No	Req	23	$15&$25	Aug
Perth Amboy General Hospital	Perth Amboy	NPAssn	192	4,785	33	95	R	4	12	JanJuly	No	None	25	$50	Varies
Muhlenberg Hospital [3]	Plainfield	NPAssn	305	6,315	38	100	R	8	12	Varies	No	Req	21	$25	Varies
Holy Name Hospital	Teaneck	Church	225	4,738	32	95	R	8	12	July	No	Req	44	$25	Dec
Mercer Hospital [1]	Trenton	NPAssn	272	5,034	40	85	R	8	12	July	No	Req	22	$25	Dec
St. Francis Hospital	Trenton	Church	328	6,589	37	100	R	8	12	July	No	Req	23	$25	Varies
William McKinley Memorial Hospital	Trenton	NPAssn	157	2,905	37	90	R	4	12	July	No	Req	21	$25	Jan
North Hudson Hospital [1,3]	Weehawken	NPAssn	191	3,521	75	100	R	7	12	Quarterly	(55)	Req	24	$25	Quarterly
NEW YORK															
Albany Hospital [1,3]✦	Albany	NPAssn	656	12,154	49	100	R	21	12	July	No	Req	69	No	Oct
Memorial Hospital [1]	Albany	NPAssn	145	3,939	26	74	R	5	12	Varies	No	Req	67	$25	Varies
St. Peter's Hospital [1]	Albany	Church	157	3,759	22	50	R	5	12	Varies	(59)	Req	25	$25	Varies
Binghamton City Hospital [3]	Binghamton	City	550	9,586	48	90	R	14	12	July	No	Req	20	$25	Nov
Beth-El Hospital [1]	Brooklyn	NPAssn	270	6,414	61	39	R	17	12	JanJuly	(60)	Req	21	$15	MaySept
Beth Moses Hospital [3]	Brooklyn	NPAssn	225	4,811	52	48	R	14	12	JanJuly	No	Req	..	$15	Varies
Brooklyn Hospital [1]✦	Brooklyn	NPAssn	410	7,449	50	100	R	20	12	April	No	Req	49	No	July
Bushwick Hospital	Brooklyn	NPAssn	130	2,519	35	..	R	3	24	July	No	Req	16	$25	Dec
Coney Island Hospital [1,3]✦	Brooklyn	City	387	7,267	100	..	R	18	12	Varies	No	Req	29	$18	Varies
Cumberland Hospital [3]✦	Brooklyn	City	400	6,900	100	..	R(p)	24	12	Quarterly	No	Op	59	$18	Quarterly
Greenpoint Hospital [1,3]✦	Brooklyn	City	300	6,029	100	..	R	20	12	July	No	Req	34	$18	Oct
Israel Zion Hospital [1,3]✦	Brooklyn	NPAssn	322	10,953	37	73	R	16	12	JanJune	No	Req	27	$15	Fall
Jewish Hospital [1,3]✦	Brooklyn	NPAssn	661	13,254	43	100	R&S	30	12	AprJuly	(35)	Req	46	$10	Varies
Kings County Hospital [1,3]✦	Brooklyn	City	2,400	56,919	100	..	RMS	132	12	April	No	Req	17	$18	Varies
Long Island College Hospital [1]✦	Brooklyn	NPAssn	466	8,582	51	..	R&S	22	12	April	(61)	Req	44	No	Varies
Methodist Hospital [1]✦	Brooklyn	Church	393	7,741	32	100	R&S	18	12-24	MarJuly	No	Req	34	No	MarOct
Norwegian Lutheran Deaconesses' Home and Hospital [1]✦	Brooklyn	Church	200	4,505	70	100	R	6	12	July	No	Req	39	(s)	Oct
St. Catherine's Hospital [1]	Brooklyn	Church	353	6,136	48	100	R	8	12	JanApr	No	Req	24	No	July
St. John's Hospital [1]✦	Brooklyn	Church	234	4,776	49	100	R	12	12	Varies	No	Req	45	No	Varies
St. Mary's Hospital [1]✦	Brooklyn	Church	308	5,501	60	50	R	8	24	Varies	No	Req	21	No	Varies
United States Naval Hospital	Brooklyn	Navy	520	4,487	100	..	R	20	12	Varies	(62)	Req	50	(b)	Varies
Unity Hospital	Brooklyn	NPAssn	248	5,330	60	100	R	10	12	July	No	Req	31	$15	Varies
Wyckoff Heights Hospital [1]	Brooklyn	NPAssn	199	4,227	35	100	M	9	12-18	Varies	No	Req	24	No	Varies
Buffalo General Hospital [1,3]✦	Buffalo	NPAssn	475	10,498	45	100	R	17	12	April	No	Req	45	No	Aug
Buffalo Hospital of the Sisters of Charity	Buffalo	Church	232	4,984	10	90	R	14	12	July	(63)	Req	24	$25	Sept
Deaconess Hospital✦	Buffalo	NPAssn	239	5,713	4	..	R	6	12	July	No	Req	32	$25	Nov
Edward J. Meyer Memorial Hospital [1,3]✦ (Buffalo City Hospital)	Buffalo	City	1,169	9,825	96	100	R	18	12	Varies	No	Req	36	$50(a)	Aug
Mercy Hospital	Buffalo	Church	198	4,826	..	100	R	5	12	Varies	No	Req	35	$50	Varies
Millard Fillmore Hospital [1]✦	Buffalo	NPAssn	327	8,748	5	100	R	10	12	April	(64)	Req	35	$15	Aug
Mary Imogene Bassett Hospital [1]✦	Cooperstown	NPAssn	106	2,009	..	..	R&S	8	12-24	June	No	None	62	$40	Nov
Arnot-Ogden Memorial Hospital	Elmira	NPAssn	210	4,684	21	85	R	5	12	July	(65)	None	26	$25	Nov
St. Joseph's Hospital	Elmira	Church	247	4,699	50	..	R	3	12	July	No	None	27	$35	Nov
Ideal Hospital [1]	Endicott	City	146	2,366	7	93	R	3	12	July	No	None	25	$35(g)	Nov
Flushing Hospital and Dispensary [1,3]	Flushing	NPAssn	319	7,563	34	33	R	8	12	July	No	Req	28	$25	Nov
Meadowbrook Hospital [1]✦	Hempstead	County	275	5,988	99	100	R	12	12	AprJuly	No	Req	53	$25	Varies
Jamaica Hospital [1]	Jamaica	NPAssn	229	5,262	62	100	R	8	24	July	No	Req	28	$15	Nov
Mary Immaculate Hospital [1,3]✦	Jamaica	Church	316	6,644	47	..	R	16	12	March	No	Req	27	$15	Varies
Queens General Hospital [1,3]✦	Jamaica	City	696	12,385	100	..	R	37	12	Varies	No	Op	75	$18	Varies
Charles S. Wilson Memorial Hospital [3]✦	Johnson City	NPAssn	350	5,326	..	100	R	10	12	Varies	(60)	Req	23	$35(g)	Varies
Our Lady of Victory Hospital	Lackawanna	Church	180	3,532	10	100	R	5	12	July	(67)	Req	29	$25	Nov
St. John's Long Island City Hospital [3]	Long Island City	Church	290	5,655	60	..	R	10	12	July	No	Req	39	$15	Varies
Nassau Hospital	Mineola	NPAssn	257	5,535	40	..	R	6	12	July	No	None	33	$50	Nov
Mount Vernon Hospital [1]	Mount Vernon	NPAssn	264	5,027	35	..	R	6	12	Varies	No	Req	34	$25	Varies
New Rochelle Hospital [1]✦	New Rochelle	NPAssn	303	6,569	33	..	R	10	12	July	No	Req	48	$50	Varies
Beekman Hospital [1]	New York	NPAssn	96	2,133	..	100	M	6	12	MarJulyNov	No	Req	21	$30	Varies
Bellevue Hospital [1,3]✦	New York	City	2,874	69,083	100	..	M&S	191	12-24	JanJuly	No	Req	30	$18	Varies
Beth Israel Hospital [1,3]✦	New York	NPAssn	403	8,513	49	100	R	12	12	April	No	Req	42	$15	July
Bronx Hospital [1,3]✦	New York	NPAssn	409	8,669	46	100	R	14	12	Varies	No	Req	44	$10	June
Columbus Hospital	New York	Church	300	4,674	84	100	R	8	18	AprJuly	No	Req	30	$35	Varies
Flower and Fifth Avenue Hospitals [1,3]✦	New York	NPAssn	411	7,893	30	100	R	14	12	April	No	Req	28	No	Aug
Fordham Hospital [3]✦	New York	City	699	12,163	100	..	R	32	12	Quarterly	No	Req	34	$18	Varies
French Hospital✦	New York	NPAssn	332	7,031	..	99	R&S	18	12	Quarterly	No	Op	30	(e)	Quarterly
Gouverneur Hospital [3]	New York	City	220	4,176	100	..	R(j)	16	12	July	No	Req	25	$18	Varies
Harlem Hospital [1,3]✦	New York	City	763	17,346	100	..	R	52	12	Varies	No	Req	24	$18	Varies
Hospital for Joint Diseases [3]✦	New York	NPAssn	355	6,283	50	95	R	12	12	Quarterly	(68)	Req	37	$15	Varies
Jewish Memorial Hospital [3]	New York	NPAssn	210	4,417	32	68	R	10	12	JanJuly	No	Req	40	$20(s)	Dec
Knickerbocker Hospital [1,3]	New York	NPAssn	220	3,735	60	40	R	8	12	JanJuly	No	Req	51	$15	JulySept
Lebanon Hospital [1]	New York	NPAssn	154	2,603	78	100	R	8	12	AprOct	No	Req	40	$25	Oct
Lenox Hill Hospital [1,3]✦	New York	NPAssn	620	10,911	60	30	R	24	12	April	No	Req	40	$40 yr	Aug

Numerical and other references will be found on page 1321.

Name of Hospital	Location	Control	Capacity	Total Patients Admitted	% Service Cases	% Priv. Pts. Worked Up by Interns	Type of Internship	Interns Appointed Annually	Length of Service in Months	Service Commences	Affiliated Service	Outpatient Service	Autopsy Percentage	Stipend per Month	Appointments Made
NEW YORK—Continued															
Lincoln Hospital [1,2]✦	New York	City	500	12,382	100	..	R	18	12	Quarterly	No	Req	36	$18	Varies
Metropolitan Hospital [1,2]✦	New York	City	1,237	11,577	100	..	R	40	12	Varies	No	Req	32	$18	Varies
Misericordia Hospital [1]	New York	Church	263	3,709	37	100	R	8	12	Varies	No	Req	17	$20	Varies
Montefiore Hosp. for Chronic Diseases [1,2]✦	New York	NPAssn	713	1,809	76	..	M(c)	8	12	Varies	No	Op	64	$25	Varies
Morrisania City Hospital [2]✦	New York	City	539	12,851	100	..	R(t)	20	12	April	No	Req	30	$18	June
Mount Sinai Hospital [1,2]✦	New York	NPAssn	856	16,585	66	..	M	16	18	April	No	Op	48	(s)	July
New York City Hospital [2]✦	New York	City	880	9,484	100	..	R&S	38	12	Varies	No	Req	37	$18	Varies
New York Hospital [1,2]✦	New York	NPAssn	1,061	16,867	67	95	S	34	12	April	No	Req	67	No	Oct
New York Infirmary for Women and Children [2]✦	New York	NPAssn	163	2,657	60	41	R	7	12	July	No	Req	61	$10	Varies
New York Polyclinic Medical School and Hospital [2]✦	New York	NPAssn	408	7,841	..	100	R	8	12	Quarterly	No	Req	20	No	Varies
New York Post-Graduate Medical School and Hospital [1,2]✦	New York	NPAssn	414	9,213	43	100	M	10	12&24	Varies	No	Req	43	No	Varies
Presbyterian and Sloane Hospitals [1,2]✦	New York	NPAssn	1,037	18,440	57	..	M	20	12	March	No	Req	59	No	Aug
Roosevelt Hospital [2]✦	New York	NPAssn	398	7,263	75	..	S	16	12	April	No	Req	45	No	Aug
St. Clare's Hospital [1]	New York	Church	395	6,041	60	100	R	6	24	JanJuly	No	Req	50	$10	Varies
St. Francis Hospital	New York	Church	401	6,575	66	100	R	8	12	JanJuly	No	None	15	$25	Nov
St. Luke's Hospital [1,2]✦	New York	NPAssn	493	8,688	64	50	M	12	12	April	No	Req	51	No	Varies
St. Vincent's Hospital ✦	New York	Church	465	8,919	70	100	R	24	12	Varies	No	Req	49	No	Varies
Sydenham Hospital [1,2]✦	New York	NPAssn	205	4,651	53	100	R	12	12	Quarterly	No	Req	45	$10	Varies
Welfare Hospital for Chronic Diseases [1,2]✦	New York	City	1,889	2,076	100	..	M	16	12	Varies	No	Req	47	$18	Varies
United Hospital	Port Chester	NPAssn	202	4,723	45	75	R	6	12	July	No	Req	30	$40(f)	Fall
Vassar Brothers Hospital	Poughkeepsie	NPAssn	240	4,935	47	..	R	5	12	July	No	Req	30	$30(e)	Fall
Genesee Hospital ✦	Rochester	NPAssn	256	6,921	26	99	R	12	12	Varies	(60)	Req	50	No	Varies
Highland Hospital	Rochester	NPAssn	265	5,052	28	40	R	10	12	Varies	No	Req	32	$25	Varies
Rochester General Hospital ✦	Rochester	NPAssn	386	8,683	33	85	R	12	12	Varies	No	Req	60	$15	Varies
St. Mary's Hospital ✦	Rochester	Church	257	7,502	..	100	R	10	12	July	No	Req	27	$20(s)	Dec
Strong Memorial and Rochester Municipal Hospitals [1]✦	Rochester	NP-Cy	721	13,669	69	100	M&S	39	12&24	Oct	No	Req	71	No	Sept
Rockaway Beach Hosp. and Dispensary	Rockaway Beach	NPAssn	125	2,963	..	..	R	7	12	July	No	None	30	$47.50	July
Ellis Hospital [1]	Schenectady	NPAssn	470	11,922	33	..	R	10	12	July	No	Req	36	$15	Jan
U. S. Marine Hospital [3] (Staten Island)	Stapleton	USPHS	875	8,329	100	..	R	12	12	July	(70)	Req	69	$67.50	Varies
St. Vincent's Hospital	Staten Island	Church	250	4,950	55	100	R	8	24	July	No	Req	16	$15	Nov
Staten Island Hospital	Staten Island	Corp	290	5,142	57	40	R	5	24	July	No	Req	17	$15	Nov
Crouse-Irving Hospital	Syracuse	NPAssn	240	7,396	30	..	R	4	12	July	No	None	22	$25	Sept
General Hospital [1]	Syracuse	NPAssn	110	2,901	31	..	R	4	12	July	No	Req	25	$25	Jan
Hospital of the Good Shepherd [1]✦	Syracuse	NPAssn	210	4,876	41	..	R	12	12	AprJuly	(71)	None	56	No	AugSept
St. Joseph Hospital	Syracuse	Church	240	6,600	33	20	R	8	12	Varies	No	None	16	No	Varies
Syracuse Memorial Hospital [1]✦	Syracuse	NPAssn	266	6,236	31	50	R	12	12	AprJuly	(71)	None	44	No	AugSept
Samaritan Hospital [1]✦	Troy	NPAssn	200	4,743	18	..	R	8	12	July	No	Req	56	$25	Nov
Troy Hospital	Troy	Church	294	4,443	..	100	R	6	12	July	(59)	Req	16	$50	Nov
Grasslands Hospital [1,2]✦	Valhalla	County	825	4,949	100	..	R	20	12	JanJuly	No	Req	65	$10	Oct
St. Agnes Hospital	White Plains	Church	177	3,595	31	69	R	5	12	July	No	Req	51	$40(h)	Nov
White Plains Hospital [1]	White Plains	NPAssn	196	3,965	33	95	R	5	12	July	No	Req	39	$25	Nov
St. John's Riverside Hospital	Yonkers	NPAssn	212	4,274	..	100	R	6	12	Varies	No	Op	36	$50	Varies
St. Joseph's Hospital	Yonkers	Church	197	2,674	59	41	R	5	12	JanJuly	No	Req	29	$25	JanJuly
Yonkers General Hospital	Yonkers	NPAssn	180	3,345	..	..	R	4	12	JanJuly	No	Req	37	$50	Varies
NORTH CAROLINA															
Charlotte Memorial Hospital [1]	Charlotte	NPAssn	311	5,397	13	100	R	8	12	Quarterly	No	None	47	$40(w)	Varies
Duke Hospital [1,2]✦	Durham	NPAssn	548	11,964	62	80	S	52	12	July	No	Req	55	No	Varies
Lincoln Hospital	Durham	NPAssn	108	1,623	70	..	R	4	12	July	No	Req	22	$25	Nov
Watts Hospital ✦	Durham	NPAssn	225	5,324	18	100	R&S	7	12	July	No	Req	38	$15	Jan
Rex Hospital [1]	Raleigh	NPAssn	210	5,515	36	90	R	5	12	July	No	Req	23	..	Sept
James Walker Memorial Hospital	Wilmington	NPAssn	230	6,618	32	50	R	8	12	July	No	Req	27	$25(f)	Nov
City Hospital [2]✦	Winston-Salem	City	427	8,802	32	95	R	14	12	July	No	Req	33	$15(x)	Nov
North Carolina Baptist Hospital [1]✦	Winston-Salem	Church	386	3,330	..	..	R	26	12	July	No	Req	34	No	June
NORTH DAKOTA															
Trinity Hospital ✦	Minot	Church	199	5,314	..	..	R	4	12	July	No	None	88	$25	Fall
OHIO															
City Hospital ✦	Akron	NPAssn	368	11,224	20	20	R	15	12	MayJune	(72)	Req	45	$25	July
Peoples Hospital [1]✦	Akron	NPAssn	215	5,572	17	100	R	8	12	MarJuly	(73)	Req	28	$50	Varies
St. Thomas Hospital [1]✦	Akron	Church	175	5,340	10	..	R	4	12	April	No	None	17	$25	Varies
Aultman Hospital	Canton	NPAssn	184	4,914	..	100	R	8	12	July	(74)	None	24	$50	Varies
Mercy Hospital ✦	Canton	Church	235	7,297	13	100	R	10	12	Varies	No	None	28	$25(e)	Varies
Bethesda Hospital [1]	Cincinnati	Church	263	7,703	..	100	R	8	12	July	No	Req	24	$35(e)	Sept
Christ Hospital ✦	Cincinnati	Church	386	9,662	20	95	R	13	12	AprJune	(75)	Req	42	$22.50	Aug
Cincinnati General Hospital [1,2]✦	Cincinnati	City	965	16,506	100	..	R	40	12	April	(76)	Req	56	No	Sept
Deaconess Hospital [1]✦	Cincinnati	Church	200	4,936	14	100	R	6	12	Varies	(77)	None	19	$25(f)	Varies
Good Samaritan Hospital [1]✦	Cincinnati	Church	600	13,616	15	30	R	12	12	Feb	No	Req	29	$20	Nov
Jewish Hospital [1]✦	Cincinnati	NPAssn	300	6,931	10	100	R	10	12	Varies	(77)	Op	33	$20	Aug
St. Mary's Hospital [1,2]	Cincinnati	Church	229	4,737	55	15	R	6	12	July	No	None	29	$25	Nov
City Hospital [1,2]✦	Cleveland	City	1,553	12,947	100	..	R	36	12	April	No	Req	41	No	July
Cleveland Clinic Foundation Hospital ✦	Cleveland	NPAssn	238	7,566	..	..	S	10	12	Quarterly	No	Req	42	$50	Quarterly
Fairview Park Hospital ✦	Cleveland	Church	187	4,402	7	100	R	4	12	July	No	Req	27	$45	Nov
Mount Sinai Hospital [1,2]✦	Cleveland	NPAssn	270	8,017	21	100	R	12	12	Varies	No	Op	62	$25	Sept
St. Alexis Hospital ✦	Cleveland	Church	230	7,102	35	100	R	8	12	Varies	(78)	Req	35	$25	Varies
St. John's Hospital [1]✦	Cleveland	Church	250	6,873	14	..	R	7	12	March	No	None	26	$50	Varies
St. Luke's Hospital [1,2]✦	Cleveland	Church	397	10,432	21	84	R	21	12	April	No	Req	41	$15	Varies
St. Vincent Charity Hospital ✦	Cleveland	Church	295	7,332	30	100	R	14	12	March	(78)	Req	31	No	July
University Hospitals [1,2]✦	Cleveland	NPAssn	885	18,604	41	59	S	40	12	AprJuly	No	Req	53	No	July
Woman's Hospital [1]	Cleveland	NPAssn	123	3,807	8	..	R	5	12	July	No	None	59	..	April
Mount Carmel Hospital	Columbus	Church	250	6,578	3	3	R	8	12	Quarterly	(79)	None	34	$25	Varies
St. Francis Hospital ✦	Columbus	State	160	3,029	50	100	R	8	12	July	(80)	None	50	$125 yr	Varies
Starling-Loving University Hospital [1]✦	Columbus	State	302	5,848	62	100	S	12	12	July	(81)	Req	49	$50 yr	Varies
White Cross Hospital ✦	Columbus	Church	274	7,850	10	85	R	8	12	July	No	None	37	$40	Nov
Good Samaritan Hospital [1]	Dayton	Church	275	7,190	14	15	R	4	12	July	No	None	41	$25	Dec
Miami Valley Hospital ✦	Dayton	NPAssn	414	10,880	17	..	R	12	12	April	No	None	38	$25	Aug
St. Elizabeth Hospital	Dayton	Church	405	7,881	29	25	R	4	12	July	No	None	23	$25	Nov

Numerical and other references will be found on page 1321.

Name of Hospital	Location	Control	Capacity	Total Patients Admitted	% Service Cases	% Priv. Pts. Worked Up by Internal	Type of Internship	Interns Appointed Annually	Length of Service in Months	Service Commences	Affiliated Service	Outpatient Service	Autopsy Percentage	Stipend per Month	Appointments Made
OHIO—Continued															
Huron Road Hospital [1]✦	East Cleveland	NPAssn	327	11,006	4	100	R	12	12	July	No	Req	46	$20	Nov
Lima Memorial Hospital	Lima	NPAssn	145	4,525	5	100	R	5	12	July	No	None	17	$50	Jan
St. Rita's Hospital	Lima	Church	140	2,950	..	..	R	4	12	July	No	None	33	$75	Dec
Springfield City Hospital [1]	Springfield	City	208	5,735	18	50	R	8	12	July	No	Req	28	$30	Nov
Lucas County General Hospital [2]✦	Toledo	County	325	3,971	100	..	R	12	12	April	No	Req	37	$25	Oct
Mercy Hospital [1]	Toledo	Church	272	5,144	6	65	R	8	12	MarJuly	No	None	31	$100	Varies
St. Vincent's Hospital [1]✦	Toledo	Church	346	8,792	11	89	R	11	12	July	No	Req	30	$50	JanJuly
Toledo Hospital [1]	Toledo	NPAssn	320	7,958	6	..	R	10	12	AprJuly	No	Req	62	$25	Varies
St. Elizabeth's Hospital [1]✦	Youngstown	Church	335	9,580	10	..	R	8	12	March	No	Req	19	$30	Oct
Youngstown Hospital [3]✦	Youngstown	NPAssn	584	14,138	10	100	R	20	12	Varies	No	Req	26	$25	Varies
OKLAHOMA															
St. Anthony Hospital✦	Oklahoma City	Church	400	9,923	13	86*	R	9	12	July	No	None	22	$25	Dec
University Hospitals✦	Oklahoma City	State	403	6,229	99	..	R	12	12	Varies	(82)	Req	48	$25	Varies
Wesley Hospital [1]	Oklahoma City	Part	162	4,827	10	90	R	4	12	July	No	None	23	$50	Jan
Hillcrest Memorial Hospital [1]	Tulsa	NPAssn	249	5,430	..	20	R	5	12	July	(118)	Req	18	$50	Nov
St. John's Hospital	Tulsa	Church	250	7,738	83	..	R	6	12	JanJuly	No	None	21	$50	Oct
OREGON															
Emanuel Hospital [1]✦	Portland	Church	343	8,464	..	100	R	12	12	June	(83)	None	42	$20	Oct
Good Samaritan Hospital✦	Portland	Church	346	9,019	5	90	R	12	12	July	No	Req	36	$20	Nov
Portland Sanitarium and Hospital [1]	Portland	Church	161	5,773	..	..	R	5	12	June	No	None	52	$70(a)	Nov
St. Vincent's Hospital✦	Portland	Church	417	10,345	..	..	R	18	12	July	No	None	50	$25	Oct
University of Oregon Medical School Hospitals and Clinics [1,3]✦	Portland	Co State	465	8,854	100	..	R	16	12	AprJuly	No	Op	65	$20	AprJuly
PENNSYLVANIA															
Abington Memorial Hospital✦	Abington	NPAssn	330	6,650	51	95	R	12	12	April	No	Req	58	No	Varies
Allentown Hospital [1,3]	Allentown	NPAssn	375	8,278	..	100	R	10	12	July	No	Req	40	$25	Oct
Sacred Heart Hospital [1]✦	Allentown	Church	335	6,013	53	99	R	8	12	July	No	Req	31	$25	Sept
Altoona Hospital	Altoona	NPAssn	180	3,204	..	..	R	5	12	MarJuly	No	Req	25	$25	Nov
Mercy Hospital [1]	Altoona	NPAssn	180	3,511	46	100	R	5	12	July	No	Req	34	$25	Fall
St. Luke's Hospital [1,3]✦	Bethlehem	NPAssn	278	5,118	29	100	R	9	12	July	No	Req	38	$100 yr	Varies
Braddock General Hospital	Braddock	NPAssn	175	3,752	26	..	R	5	12	July	No	Req	22	$25	Nov
Bryn Mawr Hospital✦	Bryn Mawr	NPAssn	264	4,875	35	100	R	9	12	July	No	Req	47	No	Varies
Chester Hospital [1,3]	Chester	NPAssn	250	5,682	39	100	R	8	12	July	No	Req	25	$15	Varies
George F. Geisinger Memorial Hospital [1]✦	Danville	NPAssn	174	5,381	..	100	R	10	12	Varies	No	Req	30	No	Varies
Fitzgerald-Mercy Hospital	Darby	Church	253	5,126	60	100	R	8	12	July	No	Req	75	$25	Dec
Easton Hospital [1,3]	Easton	NPAssn	220	5,786	30	45	R	6	12	July	No	Req	..	$50	Jan
Hamot Hospital [1]	Erie	NPAssn	255	5,906	44	..	R	8	12	July	No	Req	32	$25	Nov
St. Vincent's Hospital	Erie	NPAssn	334	9,202	44	..	R	8	12	AprJuly	No	Req	29	$25(e)	Varies
Harrisburg Hospital [1]	Harrisburg	NPAssn	264	5,988	42	75	R	10	12	July	No	Req	25	$15	Varies
Harrisburg Polyclinic Hospital	Harrisburg	NPAssn	180	4,132	..	98	R	5	12	July	No	Req	19	$35	Nov
Conemaugh Valley Memorial Hospital [1]	Johnstown	NPAssn	345	4,440	..	50	R	8	12	Varies	No	Req	28	$50	Varies
Nesbitt Memorial Hospital [1]	Kingston	NPAssn	150	2,620	20	30	R	4	12	July	No	Req	25	$40	Jan
Lancaster General Hospital [1]	Lancaster	NPAssn	281	5,764	..	..	R	8	12	July	No	Req	69	$17.50	Varies
St. Joseph's Hospital [1]	Lancaster	Church	230	4,391	40	..	R	6	12	July	No	Req	32	$25	Varies
Montgomery Hospital	Norristown	NPAssn	160	4,068	..	100	R	4	12	July	No	Req	30	$50	Varies
Chestnut Hill Hospital [1]	Philadelphia	NPAssn	114	2,516	..	50	R	4	12	April	No	Req	42	$50	Sept
Frankford Hospital [1]	Philadelphia	NPAssn	192	4,041	88	80	R	7	12	July	No	Req	27	No	Varies
Germantown Dispensary and Hospital [3]✦	Philadelphia	NPAssn	410	6,986	60	100	R	12	12	July	No	Req	50	No	Sept
Graduate Hospital of the University of Pennsylvania✦	Philadelphia	NPAssn	461	6,203	..	..	R	12	12	Varies	(84)	Req	36	No	July
Hahnemann Hospital [3]✦	Philadelphia	NPAssn	675	13,081	53	100	R	24	12	July	No	Req	55	No	June
Hospital of the Protestant Episcopal Church [1,3]✦	Philadelphia	Church	530	8,268	..	..	R	16	12	July	No	Req	69	No	April
Hosp. of the Univ. of Pennsylvania [1,3]✦	Philadelphia	NPAssn	657	10,892	1	75	R	19	12	Varies	No	Req	90	No	Varies
Hospital of the Woman's Medical College [3]✦	Philadelphia	NPAssn	173	3,392	65	100	R	5	12	JulySept	No	Req	51	No	Nov
Jefferson Medical College Hospital [3]✦	Philadelphia	NPAssn	747	13,599	69	31	R	28	12	Varies	No	Req	51	No	June
Jewish Hospital [1,3]✦	Philadelphia	NPAssn	479	7,888	43	100	R	18	12	Varies	(85)	Req	61	No	Varies
Lankenau Hospital✦	Philadelphia	NPAssn	293	4,473	..	100	R	10	12	Varies	(86)	Req	70	No	Varies
Memorial Hospital [1,3]	Philadelphia	NPAssn	111	2,516	60	50	R	4	12	July	No	Req	25	$72.50	Varies
Mercy Hospital	Philadelphia	NPAssn	125	2,082	..	100	R	4	12	July	(87)	Req	30	$10	Nov
Methodist Hospital [1]	Philadelphia	Church	206	3,742	..	..	R	8	12	July	No	Req	67	No	Oct
Misericordia Hospital [1,3]	Philadelphia	Church	230	4,948	50	49	R	9	12	Varies	No	Req	42	No	Varies
Mount Sinai Hospital [1,3]✦	Philadelphia	NPAssn	317	6,869	48	90	R	13	12	Varies	No	Req	57	No	Varies
Northeastern Hospital [1,3]	Philadelphia	NPAssn	92	2,127	80	100	R	4	12	July	No	Req	30	$20	Jan
Pennsylvania Hospital [3]✦	Philadelphia	NPAssn	563	8,993	..	100	R	24	12	Varies	(88)	Req	65	No	Varies
Philadelphia General Hospital [1,3]✦	Philadelphia	City	2,736	27,115	100	..	R	64	12	July	(85)	Req	66	No	June
Presbyterian Hospital [3]✦	Philadelphia	Church	409	5,543	..	100	R	12	12	July	No	Req	80	No	Aug
St. Joseph's Hospital [1]	Philadelphia	NPAssn	226	2,764	..	100	R	6	12	March	No	Req	30	$30	Sept
St. Luke's and Children's Medical Center [1]	Philadelphia	NPAssn	262	5,157	62	100	R	8	12	July	No	Req	31	No	Nov
St. Mary's Hospital [1]	Philadelphia	Church	250	4,070	..	100	R	6	12	July	No	Req	42	No	Varies
Temple University Hospital [1,3]✦	Philadelphia	NPAssn	473	9,047	..	100	R	20	12	July	(89)	Req	63	No	Sept
United States Naval Hospital	Philadelphia	Navy	951	8,028	100	..	R	20	12	Varies	(90)	Op	46	(b)	Varies
Woman's Hospital [2,3]✦	Philadelphia	NPAssn	166	2,972	..	100	R	6	12	MarJulySept	(91)	Op	37	No	Jan
Women's Homeopathic Hospital [1]	Philadelphia	NPAssn	200	2,688	68	..	R	4	12	July	No	Req	45	$15	Varies
Allegheny General Hospital [1]✦	Pittsburgh	NPAssn	598	9,437	50	100	R	16	12	AprJuly	No	Req	22	No	AprJuly
Mercy Hospital [1]✦	Pittsburgh	Church	680	13,185	..	..	R	24	12	July	(92)	Req	32	(s)	Varies
Montefiore Hospital✦	Pittsburgh	NPAssn	257	6,304	25	100	R	10	12	July	No	Req	49	No	Varies
Passavant Hospital [1]	Pittsburgh	Church	99	1,741	49	..	R	3	12	July	No	Req	26	$10	Nov
Pittsburgh Hospital [1]	Pittsburgh	NPAssn	210	4,877	90	..	R	6	12	July	No	Req	17	$25	Nov
Presbyterian Hospital [1]✦	Pittsburgh	NPAssn	205	5,870	66	99	R	20	12	AprJuly	(93)	Req	33	No	Varies
St. Francis Hospital [3]✦	Pittsburgh	NPAssn	709	12,419	..	..	R	20	12	July	(94)	Req	26	No	Sept
St. John's General Hospital [1]	Pittsburgh	NPAssn	232	5,055	50	90	R	7	12	July	No	Req	30	(i)	Nov
St. Joseph's Hospital and Dispensary	Pittsburgh	Church	130	2,439	..	100	R	6	12	MarJuly	No	Req	39	$25	Varies
Shadyside Hospital	Pittsburgh	NPAssn	310	5,967	33	100	R	10	12	July	(94)	Req	31	(s)	Sept
South Side Hospital [1]	Pittsburgh	NPAssn	225	5,005	..	75	R	7	12	July	No	Req	20	$25	Jan
Western Pennsylvania Hospital [1]✦	Pittsburgh	NPAssn	661	10,729	86	..	R	18	12	July	No	Req	30	No	Varies
Pottsville Hospital [1]	Pottsville	NPAssn	171	2,942	73	..	R	5	12	July	No	Req	30	$100	Varies
Homeopathic Hospital	Reading	NPAssn	131	2,896	56	..	R	4	12	June	No	Req	32	$50	Nov
Reading Hospital [1,3]✦	Reading	NPAssn	325	5,810	36	99	R	10	12	July	No	Req	59	No	Nov
St. Joseph's Hospital	Reading	Church	210	3,963	..	..	R	6	12	Varies	(95)	Req	32	$35	Nov
Robert Packer Hospital✦	Sayre	NPAssn	325	6,942	..	..	R	10	12	Varies	No	Req	47	No	Aug

Numerical and other references will be found on page 1321.

Name of Hospital	Location	Control	Capacity	Total Patients Admitted	% Service Cases	% Pvte. Pts. Worked Up by Interns	Type of Internship	Internship Approved for	Length of Service in Months	Service Commences	Affiliated Service	Outpatient Service	Autopsy Percentage	Stipend per Month	Appointments Made
PENNSYLVANIA—Continued															
Moses Taylor Hospital	Scranton	NPAssn	120	1,974	..	100	R	4	12	July	(96)	Req	27	$50	Fall
Scranton State Hospital [1]	Scranton	State	340	5,024	95	..	R	10	12	July	No	Req	19	$25	Varies
Sewickley Valley Hospital [1]	Sewickley	NPAssn	185	4,136	15	100	R	5	12	July	No	Req	28	$25	Varies
Uniontown Hospital	Uniontown	NPAssn	225	5,987	27	82	R	5	12	July	No	Req	31	$50	Feb
Washington Hospital	Washington	NPAssn	166	3,609	23	100	R	6	12	July	No	Req	21	$50	Sept
Chester County Hospital [3]	West Chester	NPAssn	176	3,407	59	41	R	5	12	Varies	No	Req	39	$50	Varies
Mercy Hospital [1,3]	Wilkes-Barre	Church	220	4,383	55	50	R	6	12	FebJuly	No	Req	30	$25	Sept
Wilkes-Barre General Hospital [1]	Wilkes-Barre	NPAssn	403	7,680	56	100	R	12	12	July	No	Req	27	No	Nov
Columbia Hospital [1]	Wilkinsburg	Church	219	4,320	21	100	R	5	12	July	No	Req	30	$15	Jan
Williamsport Hospital [1]	Williamsport	NPAssn	275	5,563	51	49	R	7	12	MarJuly	No	Req	45	$40	Jan
Windber Hospital [1]	Windber	NPAssn	117	2,583	..	100	R	4	12	July	No	Req	21	$25	July
York Hospital	York	NPAssn	219	5,213	..	..	R	8	12	MarJuly	No	Req	31	$25	Fall
RHODE ISLAND															
United States Naval Hospital	Newport	Navy	345	2,143	100	..	R	..	12	July	...	....	54	(b)	June
Memorial Hospital [1]	Pawtucket	NPAssn	200	3,902	55	98	R	6	12	July	No	Req	34	No	Nov
Homeopathic Hospital	Providence	NPAssn	196	5,158	39	86	R	5	12	AprJuly	No	Req	34	$50	July
Rhode Island Hospital [1,3]	Providence	NPAssn	463	9,226	83	100	R&S	14	12&24	Monthly	(97)	Req	45	No	Nov
St. Joseph's Hospital [3]	Providence	Church	385	6,707	39	58	R	8	12	Varies	No	Req	24	No	Varies
SOUTH CAROLINA															
Roper Hospital [4]	Charleston	NPAssn	355	8,586	70	100	R	21	12	July	No	Req	42	$10	Oct
United States Naval Hospital	Charleston	Navy	93	854	100	..	R	5	12	Varies	(98)	Req	46	(b)	Varies
Columbia Hospital [1]	Columbia	County	305	9,037	..	95	R	10	12	July	No	Req	17	$35(f)	Nov
Greenville General Hospital	Greenville	City	316	7,698	..	100	R	8	12	July	No	Req	19	$35	Varies
United States Naval Hospital	Parris Island	Navy	168	2,028	100	..	R	6	12	Varies	No	Req	25	(b)	Varies
TENNESSEE															
Baroness Erlanger Hospital [3,4]	Chattanooga	CyCo	557	11,248	48	85	R	20	12	July	(98)	Req	17	$25	Jan
Knoxville General Hospital [3,4]	Knoxville	City	350	9,154	75	100	R	6	18	Quarterly	No	Req	30	$25	Varies
Baptist Memorial Hospital	Memphis	Church	500	14,415	34	20	R	14	12	Monthly	No	Req	39	$50	Sept
John Gaston Hospital [3,4]	Memphis	City	550	17,603	95	50	R&S	26	12	Monthly	No	Req	24	$25	Nov
Methodist Hospital [4]	Memphis	Church	300	8,837	14	..	R	9	12	Quarterly	No	None	33	$50	6 mo adv
St. Joseph Hospital	Memphis	Church	268	7,472	18	100	R	9	12	Quarterly	No	None	20	$50	Quarterly
George W. Hubbard Hospital [1,3,4]	Nashville	NPAssn	180	2,511	95	100	R	8	12	July	No	Req	20	$15(h)	Nov
Nashville General Hospital [3,4]	Nashville	City	305	7,056	90	100	R	17	12	July	No	Req	37	$20	Dec
St. Thomas Hospital	Nashville	Church	205	6,947	..	100	R	8	12	Feb	No	None	29	$40	Varies
Vanderbilt University Hospital [1,4]	Nashville	NPAssn	391	6,105	..	..	S	21	12	April	(100)	Op	57	No	June
TEXAS															
Baylor University Hospital [1,4]	Dallas	Church	450	14,679	11	100	R	18	12	July	No	Req	29	$25	Nov
Methodist Hospital [1,3]	Dallas	Church	195	4,665	17	100	R	6	12	Varies	No	Req	20	$50(f)	Fall
Parkland Hospital [1,3,4]	Dallas	CyCo	391	9,764	95	100	R	16	12	JanJuly	No	Req	21	$10	Nov
St. Paul's Hospital	Dallas	Church	300	10,625	24	100	R	12	12	Varies	No	Req	37	$25	Varies
El Paso City-County Hospital [3]	El Paso	CyCo	212	4,379	100	..	R	5	12	July	No	Req	28	$25(h)	Nov
William Beaumont General Hospital	El Paso	Army	707	5,949	100	..	R	4	12	July	No	Op	95	$62.50	July
City-County Hospital [3]	Fort Worth	CyCo	188	5,046	100	..	R	8	12	July	No	Req	38	$25	Nov
Harris Memorial Methodist Hospital [1]	Fort Worth	Church	254	5,356	11	100	R	8	12	Varies	No	Req	43	$25(h)	Varies
St. Joseph's Hospital	Fort Worth	Church	230	6,413	12	100	R	5	12	July	No	None	17	$40(h)	Nov
John Sealy Hospital [4]	Galveston	State	504	8,655	72	..	R	13	12	July	No	Req	61	No	Oct
Hermann Hospital [4]	Houston	NPAssn	276	4,085	..	100	R	12	12	JanAprJuly	(101)	Req	52	$20	JulyOct
Jefferson Davis Hospital [1,3,4]	Houston	CyCo	512	14,545	100	..	R	24	12	JanAprJuly	No	Req	28	$25	Varies
Medical and Surgical Memorial Hospital [1]	San Antonio	NPAssn	115	4,848	..	65	R	5	12	July	No	Req	28	$25	Nov
Nix Hospital [1]	San Antonio	Corp	169	5,174	..	100	R	4	12	July	(102)	None	24	$50	Varies
Robert B. Green Memorial Hospital [1,3]	San Antonio	County	265	4,456	100	..	R	12	12	July	No	Req	23	$10	Nov
Santa Rosa Hospital	San Antonio	Church	321	9,142	12	100	R	10	12	JanJuly	No	Req	15	$40	Oct
Station Hospital [5] (Fort Sam Houston)	San Antonio	Army	1,223	11,250	100	..	R	10	12	July	No	Req	93	$60	Varies
Kings Daughters Hospital	Temple	NPAssn	118	3,194	..	85	R	3	12	July	No	Req	19	$50	Oct
Scott and White Hospital [3]	Temple	Corp	210	4,031	..	..	R	8	12	MarJuly	(103)	Req	45	$50	Varies
UTAH															
Thomas D. Dee Memorial Hospital	Ogden	Church	250	5,460	90	10	R	6	12	July	No	Req	38	$25	Jan
Dr. W. H. Groves Latter-Day Saints Hosp.	Salt Lake City	Church	450	9,639	6	100	R	10	12	June	(104)	None	34	$20(s)	Varies
Holy Cross Hospital [1]	Salt Lake City	Church	254	5,166	4	100	R	3	12	Varies	No	None	31	$25(i)	Varies
St. Mark's Hospital	Salt Lake City	Church	164	4,292	3	100	R	4	12	July	No	None	31	$25(f)	Nov
Salt Lake County General Hospital	Salt Lake City	County	258	4,036	97	..	R	9	12	Varies	No	Req	26	$15(h)	Varies
VERMONT															
Bishop DeGoesbriand Hospital [1,3]	Burlington	Church	140	2,858	30	96	R	3	12	July	No	None	34	$25	Nov
Mary Fletcher Hospital [4]	Burlington	NPAssn	150	6,531	67	100	R	5	12	JulySept	No	None	44	$25	Fall
VIRGINIA															
University of Virginia Hospital [4]	Charlottesville	State	571	11,113	100	..	S	24	12	April	(105)	Req	39	No	Aug
Hospital of St. Vincent de Paul [1]	Norfolk	Church	250	7,676	21	68	R	6	12	July	No	Req	..	$25	Nov
Norfolk General Hospital [4]	Norfolk	NPAssn	333	9,559	26	100	R	10	12	MarJulyOct	No	Req	30	$50	AugNov
United States Marine Hospital [3]	Norfolk	USPHS	300	3,869	100	..	R	12	12	July	(106)	Req	64	$67.50	March
Norfolk Naval Hospital	Portsmouth	Navy	1,060	9,227	100	..	R	30	12	July	No	Req	47	(b)	July
Johnston-Willis Hospital [1]	Richmond	Corp	144	5,371	..	75	R	3	12	July	No	None	47	$15	Oct
Medical College of Virginia, Hosp. Div. [1,4] (Memorial, Dooley & St. Philip Hospitals)	Richmond	State	975	11,635	72	..	R	26	12	April	(107)	Req	39	No	Varies
Stuart Circle Hospital	Richmond	Corp	112	3,187	..	100	R	3	12	April	No	None	54	$50	Sept
Jefferson Hospital [4]	Roanoke	NPAssn	115	3,067	..	100	R	2	12	July	No	Req	26	$50	Dec
Lewis-Gale Hospital [1]	Roanoke	NPAssn	134	4,639	..	100	R	4	12	July	No	Req	38	$50	Nov
WASHINGTON															
United States Naval Hospital	Bremerton	Navy	316	2,856	100	..	R	10	12	July	No	Req	78	(b)	Varies
Columbus Hospital [1]	Seattle	Church	239	4,569	10	100	R	4	12	Varies	(108)	Req	23	$50	Varies
King County Hospital Unit No. 1 [1,3,4] (Harborview)	Seattle	County	506	13,204	100	..	R	24	12	April	No	Req	42	$35	July

Numerical and other references will be found on page 1321.

Name of Hospital	Location	Control	Capacity	Total Patients Admitted	% Service Cases	% Priv. Pts. Worked Up by Interns	Type of Internship	Interns Appointed	Length of Service in Months	Service Commences	Affiliated Service	Outpatient Service	Autopsy Percentage	Stipend per Month	Appointments Made
WASHINGTON—Continued															
Providence Hospital	Seattle	Church	443	11,807	..	100	R	10	12	July	(109)	Req	15	$30	Nov
Seattle General Hospital [1]	Seattle	NPAssn	144	4,891	..	100	R	3	12	July	(110)	None	..	$50	Varies
Swedish Hospital	Seattle	NPAssn	344	7,997	3	97	R	10	12	AprJuly	(110)	None	29	$30	Aug
United States Marine Hospital [3]	Seattle	USPHS	400	3,477	100	..	R	8	12	July	(111)	Req	79	$67.50	Varies
Virginia Mason Hospital ✦	Seattle	NPAssn	193	5,542	..	100	R	8	12	AprJan	No	Req	61	$30	Varies
Deaconess Hospital	Spokane	Church	223	5,717	..	..	R	5	12	April	(112)	None	24	$50	April
Sacred Heart Hospital [1]	Spokane	Church	346	10,150	..	100	R	7	12	July	No	None	33	$35	July
St. Luke's Hospital [1]	Spokane	NPAssn	216	3,541	..	100	R	4	12	Quarterly	(113)	None	36	$50	Nov
Pierce County Hospital	Tacoma	County	190	3,750	100	..	R	6	12	March	No	Req	32	$60	Sept
St. Joseph's Hospital	Tacoma	Church	329	5,438	..	..	R	4	12	Varies	No	Req	41	$100	Varies
Tacoma General Hospital ✦	Tacoma	NPAssn	241	7,621	..	..	R	5	12	Varies	No	Req	28	$50	Varies
WEST VIRGINIA															
Charleston General Hospital [1]✦	Charleston	NPAssn	325	10,327	50	50	R	13	12	Varies	No	Req	41	$85	Varies
Kanawha Valley Hospital	Charleston	Corp	164	3,944	57	75	R	3	12	JanJuly	No	Req	39	$75	JanJuly
Chesapeake and Ohio Hospital	Huntington	NPAssn	130	2,825	..	..	R	3	12	July	No	Req	33	$67.50	Nov
St. Mary's Hospital	Huntington	Church	230	5,977	..	100	R	4	12	July	No	Req	15	$87.50	Varies
St. Joseph's Hospital	Parkersburg	Church	139	2,856	..	100	R	2	12	July	No	None	35	$50	Varies
Ohio Valley General Hospital [3]	Wheeling	NPAssn	308	7,131	25	100	R	10	12	Varies	No	Req	38	$50	Varies
Wheeling Hospital	Wheeling	Church	200	4,013	9	100	R	3	12	July	No	None	18	$40	Oct
WISCONSIN															
St. Elizabeth Hospital [1]	Appleton	Church	210	4,334	..	..	R	3	12	June	No	None	23	$25	Varies
Luther Hospital [1]	Eau Claire	NPAssn	176	3,883	..	93	R	4	12	Varies	No	None	56	$25(f)	Nov
St. Agnes Hospital	Fond du Lac	Church	202	6,561	..	..	R	3	12	June	No	None	18	$35	Nov
St. Francis Hospital [1]	La Crosse	Church	292	5,404	..	100	R	5	12	Varies	No	Req	48	$30	Varies
Madison General Hospital [1]	Madison	NPAssn	203	6,405	..	100	R	7	12	Varies	No	None	38	$30	Varies
Methodist Hospital [1]	Madison	Church	124	2,187	..	..	R	4	12	April	No	Req	22	$60(g)	Varies
St. Mary's Hospital	Madison	Church	225	6,879	..	..	R	6	12	July	No	None	38	$25	Varies
State of Wisconsin General Hospital [1]✦	Madison	State	790	13,296	100	..	R	20	12	April	No	Req	72	No	Sept
St. Joseph's Hospital [1]	Marshfield	Church	216	4,092	..	80	R	3	12	JanJuly	No	None	22	$100	Oct
Columbia Hospital ✦	Milwaukee	NPAssn	150	3,560	1	100	R	6	12	MarJuly	No	None	51	$25	June
Evangelical Deaconess Hospital [1]	Milwaukee	Church	170	5,169	1	99	R	6	12	July	(114)	Req	22	$75	Nov
Milwaukee Hospital ✦	Milwaukee	Church	265	6,859	..	100	R	10	12	March	(115)	Req	57	$25	Sept
Misericordia Hospital	Milwaukee	Church	142	3,147	3	..	R	2	12	Varies	No	None	..	$100	Varies
Mount Sinai Hospital	Milwaukee	NPAssn	190	6,301	9	100	R	6	12	July	No	Req	32	$25	Nov
St. Joseph's Hospital ✦	Milwaukee	Church	380	8,630	..	100	R	8	12	June	No	Req	27	$15	Varies
St. Luke's Hospital	Milwaukee	Church	135	4,383	..	100	R	3	12	JanJuly	No	Req	31	$50	Varies
St. Mary's Hospital ✦	Milwaukee	Church	290	7,180	..	100	R	6	12	July	No	None	26	$50	Nov
St. Michael Hospital [1]	Milwaukee	Church	175	3,818	20	..	R	3	12	June	No	Req	38	$25	Nov
Mercy Hospital	Oshkosh	Church	224	4,404	..	80	R	3	12	July	No	None	22	$35	July
St. Mary's Hospital	Racine	Church	240	5,265	..	..	R	3	12	July	No	None	36	$30	Jan
St. Mary's Hospital [1]	Superior	Church	163	2,031	..	..	R	2	12	July	No	None	19	$25	July
Milwaukee County Hospital [1-3]✦	Wauwatosa	County	1,125	15,062	100	..	R	40	12	June	(116)	Req	29	$10	Nov
CANAL ZONE															
Gorgas Hospital ✦	Ancon	Fed	1,388	20,964	100	..	R	25	12	Varies	No	Op	60	(b)	Varies
HAWAII															
Queen's Hospital ✦	Honolulu	NPAssn	350	11,175	..	..	R	6	12&24	(u)	(117)	None	37	$45.90	Jan
United States Naval Hospital	Pearl Harbor	Navy	178	3,589	100	..	R	8	12	Varies	No	None	100	(b)	Varies
PHILIPPINES															
Philippine General Hospital	Manila	Gov't	895	20,622	..	..	R	..	12	March	...	Req	..	...	.....
PUERTO RICO															
Bayamón Charity District Hospital	Bayamón	Gov't	343	5,214	100	..	R	6	12	July	No	Req	37	$25	Jan
Fajardo Charity District Hospital [1]	Fajardo	Gov't	335	4,789	100	..	R	6	12	July	No	Req	30	$25	Nov
Presbyterian Hospital [1]	San Juan	Church	145	2,780	46	80	R	4	12	July	No	Req	23	$10	JanJune

Numerical and other references will be found on page 1321.

HOSPITALS APPROVED FOR INTERNSHIPS IN THE DOMINION OF CANADA

For the benefit of graduates of approved medical colleges who desire an internship in Canada, the Council on Medical Education and Hospitals of the American Medical Association has declared that hospitals which conform to the standards of the Department of Hospital Service of the Canadian Medical Association should be regarded as giving an internship equivalent in educational value to that offered by hospitals in the United States approved for intern training by the Council. It is understood, however, that this statement applies only to hospitals that are unqualifiedly "Approved" under the Canadian plan and does not apply to that group referred to as "Commended."

The following list of hospitals, revised to June 1, 1942, has been furnished by the Department of Hospital Service.

Name of Hospital	Location
Victoria General Hospital	Halifax, N. S.
St. John General Hospital	St. John, N. B.
Hospital du St. Sacrament	Quebec, Que.
Hotel Dieu de Quebec	Quebec, Que.
Hospital of the Infant Jesus	Quebec, Que.
Jeffrey Hale's Hospital	Quebec, Que.
Children's Memorial Hosp.	Montreal, Que.
Homoeopathic Hospital	Montreal, Que.
Hospital Notre Dame	Montreal, Que.
Hospital Ste. Jeanne d'Arc	Montreal, Que.
Hospital Ste. Justine	Montreal, Que.
Hotel Dieu de Montreal	Montreal, Que.
Hospital Ste. Luc	Montreal, Que.
Jewish General Hospital	Montreal, Que.
Montreal General Hospital	Montreal, Que.
Royal Victoria Hospital	Montreal, Que.
St. Mary's Hospital	Montreal, Que.
Woman's General Hospital, (Westmount)	Montreal, Que.
McKellar General Hospital	Fort William, Ont.
Hamilton General Hospital	Hamilton, Ont.
St. Joseph's Hospital	Hamilton, Ont.
Ottawa Civic Hospital	Ottawa, Ont.
Ottawa General Hospital	Ottawa, Ont.
Kingston General Hospital	Kingston, Ont.
Hospital for Sick Children	Toronto, Ont.
Mount Sinai Hospital	Toronto, Ont.
St. Joseph's Hospital	Toronto, Ont.
St. Michael's Hospital	Toronto, Ont.
Toronto East General Hosp.	Toronto, Ont.
Toronto General Hospital	Toronto, Ont.
Toronto Western Hospital	Toronto, Ont.
Women's College Hospital	Toronto, Ont.
Brantford General Hospital	Brantford, Ont.
St. Joseph's Hospital	London, Ont.
Victoria Hospital	London, Ont.
Metropolitan General Hosp.	Windsor, Ont.
Hotel Dieu of St. Joseph Hosp.	Windsor, Ont.
Children's Hospital	Winnipeg, Man.
Misericordia Hospital	Winnipeg, Man.
Winnipeg General Hospital	Winnipeg, Man.
St. Boniface Hospital	St. Boniface, Man.
Regina Grey Nuns' Hospital	Regina, Sask.
Regina General Hospital	Regina, Sask.
St. Paul's Hospital	Saskatoon, Sask.
Saskatoon City Hospital	Saskatoon, Sask.
Holy Cross Hospital	Calgary, Alta.
Edmonton General Hospital	Edmonton, Alta.
Misericordia Hospital	Edmonton, Alta.
Royal Alexandra Hospital	Edmonton, Alta.
University of Alberta Hosp.	Edmonton, Alta.
St. Paul's Hospital	Vancouver, B. C.
Vancouver General Hospital	Vancouver, B. C.
Royal Jubilee Hospital	Victoria, B. C.
St. Joseph's Hospital	Victoria, B. C.

NOTES

(a) In lieu of maintenance.
(b) Salary established by government pay tables.
(c) Plus three internships in pathology.
(d) Bonus of $240.

(e) Bonus of $60.
(f) Bonus of $100.
(g) Bonus of $180.
(h) Bonus of $120.
(i) Bonus of $300.
(j) Plus one internship in pathology.
(k) Every two months.
(m) Bonus of $75.
(o) Bonus of $150.

(p) Plus one internship in pathology and one in roentgenology.
(q) Bonus of $250.
(r) Second year of straight internship available.
(s) Bonus of $50.
(t) Plus one internship in medicine.
(u) Every ten weeks.
(v) Male patients only.
(w) Bonus of $200.
(x) Bonus of $125.

1. Women interns admitted.
2. Women interns only.
3. Dental interns employed.

Affiliation as Referred to in Column Headed: "Affiliated Service"

4. California Babies' and Children's Hospital, Los Angeles, pediatrics; Santa Monica Hospital, Santa Monica, emergency work.
5. Los Angeles Maternity Service.
6. Children's Hospital, Los Angeles Maternity Service, Good Hope Hospital Association, pediatrics, obstetrics, outpatient service.
7. Children's Hospital, Los Angeles.
8. Fairmont Hospital of Alameda County, San Leandro, and Arroyo-Del Valle Sanatorium, Livermore, medicine, surgery, tuberculosis.
9. Woman's Hospital, Pasadena, obstetrics.
10. Mercy Hospital, San Diego, obstetrics, gynecology.
11. Laguna Honda Home, San Francisco, chronic diseases; Hassler Health Home, Redwood City, tuberculosis.
12. St. Francis Hospital, Stanford University Hospitals, San Francisco, obstetrics, pediatrics.
13. Franklin Hospital, San Francisco, obstetrics, gynecology, pediatrics.
14. Porter Sanitarium and Hospital, Denver, general.
15. Gallinger Municipal Hospital, Washington, obstetrics.
16. Gallinger Municipal Hospital, communicable diseases, pediatrics.
17. Gallinger Municipal Hospital, communicable diseases, tuberculosis.
18. Gallinger Municipal Hospital, Children's Hospital, Washington, obstetrics, pediatrics.
19. George Washington University Hospital, Washington, obstetrics.
20. Pensacola Hospital, Pensacola, obstetrics, gynecology, pediatrics.
21. Grady Hospital, Atlanta.
22. Misericordia Hospital and Home for Infants, Chicago, obstetrics.
23. Winfield Sanatorium, Winfield, tuberculosis.
24. Chicago Maternity Center, obstetrics, gynecology, pediatrics.
25. Chicago Lying-in Hospital, Children's Memorial Hospital, Chicago, obstetrics, gynecology, pediatrics.
26. Broadlawns, Polk County Public Hospital, Des Moines, outpatient service.
27. Watkins Memorial Hospital, Lawrence, general.
28. Sedgwick County Hospital, Wichita.
29. Salvation Army Home and Hospital, Sedgwick County Hospital, Wichita, obstetrics, general.
30. Children's Free Hospital, Louisville General Hospital, pediatrics, obstetrics, gynecology.
31. Children's Free Hospital, Kosair Crippled Children's Hospital, Louisville, pediatrics, orthopedics; Waverly Hillis Sanatorium, Waverly Hills, tuberculosis.
32. Touro Infirmary, New Orleans, obstetrics, gynecology, pediatrics.
33. University Hospital, Sydenham Hospital, Baltimore, pediatrics, obstetrics, communicable diseases.
34. James Lawrence Kernan Hospital and Industrial School for Crippled Children, Baltimore.
35. Sydenham Hospital, Baltimore, communicable diseases.
36. Haynes Memorial Hospital of Massachusetts Memorial Hospitals, Boston, communicable diseases.
37. Children's Hospital, Boston, pediatrics.
38. Essex Sanatorium, Middleton, tuberculosis.
39. Wesson Maternity Hospital, Shriners Hospital for Crippled Children, Springfield, obstetrics, orthopedics.
40. Wesson Maternity Hospital, Health Department Hospital, Springfield, obstetrics, communicable diseases.
41. Herman Kiefer Hospital, Detroit.
42. Herman Kiefer Hospital, Children's Hospital, Detroit, communicable diseases, obstetrics, pediatrics.
43. Grace Hospital, Detroit, obstetrics, gynecology, pediatrics.
44. Ingham Sanatorium, Lansing, tuberculosis.
45. Ingham Sanatorium, Boys' Vocational School Hospital, Lansing.
46. Miller Memorial Hospital, Duluth, outpatient service.
47. Gillette State Hospital for Crippled Children, St. Paul.
48. Children's Hospital, St. Paul, pediatrics.
49. Shriners Hospital for Crippled Children, City Isolation Hospital, St. Louis Children's Hospital, Barnard Free Skin and Cancer Hospital, St. Louis.
50. Robert Koch Hospital, Koch; City Isolation Hospital, St. Louis, tuberculosis, communicable diseases.
51. Alexian Brothers Hospital, St. Louis, outpatient service.
52. City Isolation Hospital, City Sanitarium, City Infirmary, St. Louis; Robert Koch Hospital, Koch, communicable diseases, psychiatry, tuberculosis.
53. St. Mary's Group of Hospitals includes the Firmin Desloge Hospital, St. Mary's Hospital and Mount St. Rose Sanatorium.
54. St. Elizabeth Hospital, Elizabeth, obstetrics, gynecology.
55. Margaret Hague Maternity Hospital, Hudson County Tuberculosis Hospital, Jersey City, obstetrics, tuberculosis.
56. Margaret Hague Maternity Hospital, Jersey City.
57. New Jersey State Hospital, Marlboro, psychiatry; Allenwood Sanatorium, Allenwood, tuberculosis.
58. Fairview Sanatorium, New Lisbon, tuberculosis.
59. Anthony N. Brady Maternity Home, Albany.
60. Kingston Avenue Hospital, Brooklyn, communicable diseases.
61. Brooklyn Thoracic Hospital, tuberculosis.
62. French Hospital, New York City, obstetrics.
63. Emergency Hospital of the Sisters of Charity, St. Mary's Infant Asylum and Maternity Hospital, Providence Retreat, Buffalo.
64. Edward J. Meyer Memorial Hospital, Buffalo, pediatrics, communicable diseases, psychiatry.
65. Chemung County Sanatorium, Elmira, tuberculosis.
66. Binghamton State Hospital, Binghamton, psychiatry.
67. Our Lady of Victory Infants' Home, Lackawanna, obstetrics, pediatrics.
68. Jewish Maternity Hospital, New York City.
69. Strong Memorial Hospital, Rochester, surgery.
70. Misericordia Hospital, New York City, obstetrics, pediatrics.
71. Rotation service established between Hospital of the Good Shepherd, Syracuse Memorial Hospital, City Hospital and Syracuse Psychopathic Hospital, comprising Syracuse University Medical Center Hospitals.
72. Children's Hospital, Akron, pediatrics; Chicago Lying-in Hospital, obstetrics.
73. Children's Hospital, Akron, pediatrics.
74. Molly Stark Sanatorium, Canton, tuberculosis; Massillon State Hospital, Massillon, psychiatry.
75. Children's Hospital, Cincinnati, pediatrics.
76. Hamilton County Tuberculosis Hospital, Hamilton County Home and Chronic Disease Hospital, Children's Hospital, Cincinnati, tuberculosis, chronic diseases, pediatrics.
77. Cincinnati General Hospital, Cincinnati.
78. St. Ann's Maternity Hospital, Cleveland.
79. Children's Hospital, Columbus, pediatrics.
80. St. Ann's Maternity Hospital, Children's Hospital, Columbus, obstetrics, pediatrics.
81. Children's Hospital, Columbus State Hospital, pediatrics, psychiatry.
82. Western Oklahoma Tuberculosis Sanatorium, Clinton; Central Oklahoma State Hospital, Norman, psychiatry.
83. Shriners Hospital for Crippled Children, Portland.
84. Hospital of the University of Pennsylvania, Philadelphia, obstetrics.
85. Philadelphia Hospital for Contagious Diseases.
86. Children's Hospital of the Mary J. Drexel, Home, Philadelphia, pediatrics.
87. Henry Phipps Institute of the University of Pennsylvania, Philadelphia, tuberculosis.
88. Children's Hospital, Philadelphia, pediatrics.
89. Shriners Hospital for Crippled Children, Philadelphia Hospital for Contagious Diseases.
90. St. Joseph's Hospital, St. Vincent's Hospital for Women and Children, Philadelphia, obstetrics, gynecology.
91. Pennsylvania Hospital, Department for Mental and Nervous Diseases, Philadelphia.
92. Rosella Foundling and Maternity Hospital, Municipal Hospital for Contagious Diseases, Pittsburgh.
93. Elizabeth Steel Magee Hospital, Children's Hospital, Eye, Ear, Nose and Throat Hospital, Woman's Hospital, Pittsburgh.
94. Municipal Hospital for Contagious Diseases, Pittsburgh.
95. Berks County Tuberculosis Sanatorium, Reading.
96. Scranton State Hospital, obstetrics.
97. Providence Lying-In Hospital.
98. Roper Hospital, Charleston, general.
99. T. C. Thompson Children's Hospital, Pine Breeze Sanatorium, Chattanooga, pediatrics, tuberculosis.
100. Willard Parker Hospital, New York City, communicable diseases.
101. Southern Pacific Hospital, Houston, medicine, surgery.
102. Salvation Army Women's Home, Mission Home, San Antonio, obstetrics.
103. Gulf, Colorado and Santa Fe Hospital, Temple, medicine, surgery.
104. Utah State Hospital, Provo, psychiatry.
105. Blue Ridge Sanatorium, Charlottesville, tuberculosis.
106. Norfolk General Hospital, obstetrics.
107. Pine Camp Hospital, Brook Hill, tuberculosis.
108. King County Hospital, Seattle, outpatient service.
109. King County Hospital, King County Tuberculosis Hospital, Seattle, outpatient service, tuberculosis.
110. Children's Orthopedic Hospital, Seattle.
111. King County Hospital, Seattle, obstetrics, gynecology, pediatrics.
112. Edgecliff Sanatorium, Spokane, tuberculosis.
113. Edgecliff Sanatorium, Salvation Army Women's Hospital and Home, Shriners Hospital for Crippled Children, Spokane, tuberculosis, obstetrics, orthopedics, pediatrics.
114. Milwaukee Children's Hospital, pediatrics.
115. Salvation Army Martha Washington Women's Home and Hospital, Wauwatosa.
116. South View Hospital, Milwaukee, communicable diseases.
117. Kaulkeolani Children's Hospital, Honolulu.
118. Welfare Association Obstetric Service and Tulsa County Charity Clinic, Tulsa, Okla.

APPROVED RESIDENCIES AND FELLOWSHIPS

Council on Medical Education and Hospitals of the American Medical Association,
535 North Dearborn Street, Chicago

Hospitals, 662; Residencies, 4,948; Fellowships, 539

The following institutions approved by the Council on Medical Education and Hospitals are considered in position to furnish acceptable training in various specialties as indicated below. Residencies in specialties, as defined by the Council, are straight services of one or more years following an approved internship. A fellowship is a form of apprenticeship which in some cases is indistinguishable from a residency, although it usually offers greater opportunity for the study of basic sciences and research. Ordinarily a fellowship is a university rather than a hospital appointment. Mixed residencies are general hospital assignments following internship. They include services classified as general residencies and chief residencies.

The star (*) indicates hospitals that are also approved for the training of interns. All hospitals on the approved intern list are likewise accredited for general or mixed residencies.

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The information contained in the following list is based on reports received in January 1942, and thus represents the educational facilities that are ordinarily available in the specialty fields under normal conditions. Many residency programs have since been curtailed because of military requirements, but there is every indication that the approved hospitals are maintaining their educational structure so as to be able to meet current and future residency needs.

1. ANESTHESIOLOGY

Revision of list is now taking place in collaboration with the American Board of Anesthesiology

		Chief of Service	Inpatients Treated [6]	Total Anesthetics	Inhalation Anesthetics	Autopsy Percentage	Residents	Assistant Residents	Fellows	Service Begins	Length of Service (Years)	Beginning Stipend
Los Angeles County Hospital *[1]	Los Angeles	A. Guedell	49,376	11,847	3,460	60	2	0	0	7/1	1-2	$10
White Memorial Hospital *	Los Angeles	L. D. Lee	8,036	4,497	1,662	50	1	0	0	7/1	1-3	$80
Stanford University Hospitals *[1]	San Francisco	W. B. Neff	8,911	5,233	3,186	50	1	1	0	7/1	1	$55
University of California Hospital *	San Francisco	H. R. Hathaway	7,228	6,195	3,130	88	1	0	0	Varies	1-3	$25
Hartford Hospital *[1]	Hartford, Conn.	R. Tovell	19,345	15,373	8,149	52	12	0	0	1/1,7/1	2	...
University Hospital *[1]	Augusta, Ga.	P. P. Volpitto	10,305	.....	.....	32	0	1	0	7/1	1	$25
Michael Reese Hospital *[1]	Chicago	C. Stein	15,517	8,334	4,866	64	5	0	0	1/1,7/1	1-2	$50
Research and Educational Hospital *[1]	Chicago	W. H. Cassels	5,694	2,574	1,895	91	4	0	0	7/1	1	$50
University of Chicago Clinics *[1]	Chicago	H. Livingstone	11,554	3,732	5,512	81	1	1	1	1/1,7/1	1-2	$25
Methodist Hospital *[1]	Indianapolis	J. M. Whitehead	15,855	16,546	9,610	37	3	0	0	7/1	1-2	$75
University Hospitals *[1]	Iowa City, Iowa	S. C. Cullen	21,564	8,933	5,100	58	1	1	0	7/1	1+	$20.83
University of Kansas Hospitals *[1]	Kansas City, Kan.	P. Lorban	6,643	2,460	1,821	71	1	1	0	7/1	2	...
Louisville General Hospital *	Louisville, Ky.	D. M. Dollar	10,886	3,105	1,656	29	1	1	0	7/1	1-2	...
Boston City Hospital *	Boston	S. C. Wiggin	43,181	8,312	2,444	70	1	0	0	Varies	1+	$250
Lahey Clinic [7]	Boston	U. H. Eversole	.....	7,500	3,500	..	0	0	5	1/1,7/1	1-2	$100
Massachusetts General Hospital *[1]	Boston	H. K. Beecher	7,622	5,578	.....	62	1	0	0	Varies	1-3	...
Massachusetts Memorial Hospital *[1]	Boston	E. R. Ferguson	6,405	5,201	1,365	76	2	0	0	7/1	2	$50
Harper Hospital *	Detroit	F. J. Murphy	18,388	9,380	6,614	38	0	1	0	7/1	1	$25
University Hospitals *	Minneapolis	R. Knight	8,850	4,701	2,347	72	0	0	3	7/1	1-3	$50
Mayo Foundation	Rochester, Minn.	J. S. Lundy	(See page 1344)									
West Jersey Homeopathic Hospital *	Camden, N. J.	H. S. Ruth	5,775	2,942	1,968	27	1	0	0	10/1	1-2	...
Jersey City Hospital *[1]	Jersey City, N. J.	W. Gleeson	3,940	3,167	1,290	22	1	4	0	1/1,7/1	1+	$75
Albany Hospital *[1]	Albany, N. Y.	F. A. D. Alexander	12,154	5,451	4,472	69	1	2	0	Varies	2-3	$50
Buffalo General Hospital *[1]	Buffalo	P. W. Searles	10,499	6,776	4,500	44	1	0	0	7/1	1	$50
Bellevue Hospital *[1]	New York City	E. A. Rovenstine	69,083	18,000	12,000	39	11	0	0	1/1,7/1	2-3	Varies
Flower and Fifth Avenue Hospital *	New York City	D. E. Brace	7,803	6,002	4,159	28	2	0	0	7/1	1	$50
French Hospital *	New York City	S. H. Lesinger	7,031	2,665	1,823	30	1	0	0	7/1	1	...
Lincoln Hospital *	New York City	I. Hayman	12,382	3,024	2,104	26	2	0	0	Varies	1+	$100
Metropolitan Hospital *[1]	New York City	D. E. Brace	11,577	3,222	1,912	32	3	0	0	7/1	1-2	$100
New York Polyclinic Medical School and Hospital *	New York City	B. C. Sword	7,841	4,793	4,477	20	3	0	0	1/1,7/1,10/1	2	$100
New York Post-Graduate Medical School and Hospital *[1]	New York City	M. C. Peterson	9,213	5,196	3,975	43	1	5	0	1/1,4/1,7/1	2	$50
Presbyterian Hospital *[1]	New York City	V. Apgar	18,440	12,030	9,011	59	5	0	0	1/1,7/1	1	$50
St. Luke's Hospital *	New York City	G. E. Burford	8,588	6,046	3,493	51	1	3	0	1/1	...	$100
St. Vincent's Hospital *	New York City	G. H. Van Gilluwe	8,919	3,478	1,088	49	1	1	0	1/1,7/1	1	$75
Grasslands Hospital *	Valhalla, N. Y.	H. F. Bishop	4,949	1,512	802	65	0	1	0	7/1	1-2	$75
Cincinnati General Hospital *	Cincinnati	J. H. Bennett	16,506	6,102	3,182	55	0	1	0	7/1	1-3	*
Huron Road Hospital *[1]	East Cleveland, O.	R. J. Whitacre	11,006	7,172	3,918	46	0	2	0	7/1	1-2	...
University Hospitals *[1]	Oklahoma City, Okla.	H. E. Doudna	6,229	3,795	3,090	48	2	0	0	7/1	1	$50
University of Oregon Medical Hospitals and Clinics *[1]	Portland, Ore.	J. H. Hutton	8,854	19,810	3,623	65	1	0	1	7/1	1	$40
Hahnemann Hospital *	Philadelphia	J. M. Godfrey	13,081	5,937	3,842	55	2	0	0	9/1	1	$50
Hospital of the University of Pennsylvania *[1]	Philadelphia	I. B. Taylor	10,892	9,935	3,150	90	2	0	0	Varies	2-3	*
Presbyterian Hospital *	Philadelphia	F. P. Haugen	5,543	4,122	3,386	80	1	0	0	7/1	1-3	$62.50
Rhode Island Hospital *	Providence, R. I.	M. Saklad	9,236	6,635	3,114	48	1	0	0	7/1	1	$50
State of Wisconsin General Hospital *[1]	Madison, Wis.	R. M. Waters	13,296	4,857	4,076	72	3	3	0	7/1	3	$25
Columbia Hospital *	Milwaukee	H. Cunningham	3,560	2,186	1,093	51	1	0	0	7/1	1	$50

2. CARDIOLOGY

			Inpatients Treated [6]	Outpatient Visits	Deaths	Autopsies	Residents	Assistant Residents	Fellows	Service Begins	Length of Service (Years)	Beginning Stipend
Indiana University Medical Center *[1]	Indianapolis	G. S. Bond	.....	269	.....	..	1	0	0	7/1	1-3	$66.33
House of the Good Samaritan [1]	Boston	W. D. Smith	178	744	7	5	1	0	0	7/1	1-2	$50
Henry Ford Hospital *	Detroit	F. J. Smith	999	6,946	114	43	1	1	2	7/1	1-3	$120
Pennsylvania Hospital *	Philadelphia	W. D. Stroud	.....	4,421	3	3	0	0	1	7/1	1-3	$35
St. Francis Hospital *	Pittsburgh	A. P. D'Zmura	455	67	88	12	1	0	0	9/1	1	$50
Rhode Island Hospital *	Providence	F. T. Fulton	2,658	698	.....	..	1	0	0	7/1	1	$50

Numerical and other references will be found on page 1344.

3. COMMUNICABLE DISEASES

		Chief of Service	Inpatients Treated[4]	Outpatient Visits	Deaths	Autopsies	Residents	Assistant Residents	Fellows	Service Begins	Length of Service (Years)	Beginning Stipend
Los Angeles County Hospital *[1]	Los Angeles	P. Hamilton	2,926	.....	185	125	2	0	0	Varies	1+	....
Children's Hospital *[1]	San Francisco	E. B. Shaw	381	.....	11	..	0	1	0	7/1	1	$25
Municipal Hospitals *	Hartford, Conn.	C. L. Thenebe	466	.....	15	2	1	0	0	7/1	1	$125
Cook County Hospital *[1]	Chicago	A. L. Hoyne	1,762	.....	80	55	1	0	0	1/1, 7/1	1	$25
Municipal Contagious Disease Hospital [1]	Chicago	A. L. Hoyne	2,352	.....	75	52	6	0	0	1/1, 7/1	1	$100
Sydenham Hospital [1]	Baltimore	I. R. Peh	1,417	.....	59	35	1	1	0	7/1	1	....
Boston City Hospital *	Boston	E. H. Place	1,784	.....	20	6	2	0	0	Varies	..	$150
Massachusetts Memorial Hospitals *	Boston	C. Wesselhoeft	1,298	.....	19	15	1	0	0	7/1	1	....
Belmont Hospital [1]	Worcester, Mass.	W. MacDonald	653	.....	10	7	1	0	0	Varies	1-3	$133
Herman Kiefer Hospital	Detroit	D. C. Young	3,016	.....	86	49	4	0	0	7/1	1-3	$175
Kansas City General Hospital *	Kansas City, Mo.	P. F. Stookey	371	.....	11	11	1	0	0	7/1	1	$50
City Isolation Hospital [1]	St. Louis	R. W. Maxwell	1,468	.....	45	17	1	1	0	7/1	1	$75
Essex County Hospital for Contagious Diseases [1]	Belleville, N. J.	E. L. Smith	4,070	.....	45	21	4	0	0	1/1, 7/1	1	$50
Kingston Avenue Hospital [1]	Brooklyn	M. B. Gordon	3,999	.....	67	37	6	0	0	1/1, 7/1	1	$100
Queens General Hospital *[1]	Jamaica, N. Y.	H. A. Reisman	699	.....	16	10	2	1	0	7/1	1	$18
Willard Parker Hospital [1]	New York City	B. W. Hamilton	6,689	.....	30	23	7	0	0	1/1, 7/1	1	$100
City Hospital *	Cleveland	H. J. Gerstenberger	2,524	.....	101	44	1	1	0	7/1	1-3	$624
Philadelphia Hospital for Contagious Diseases [1]	Philadelphia	P. F. Lucchesi	4,188	.....	67	51	2	2	0	1/1, 7/1	1	$25

4. DERMATOLOGY AND SYPHILOLOGY

The following Services are Approved by the Council and the American Board of Dermatology and Syphilology (See footnotes 2, 3 and 4)

		Chief of Service	Inpatients Treated[4]	Outpatient Visits	Deaths	Autopsies	Residents	Assistant Residents	Fellows	Service Begins	Length of Service (Years)	Beginning Stipend
Los Angeles County Hospital *[1,3]	Los Angeles	T. Nisbet	753	38,777	12	8	3	0	0	7/1	3	$10
Stanford University Hospitals *[1,3]	San Francisco	H. A. Alderson	61	20,111	.....	..	1	0	0	7/1	1	$25
University of California Hospital *[1,4]	San Francisco	H. E. Miller	32	8,238	.....	..	0	1	0	7/1	1-3	$25
Georgetown University Hospital *[3]	Washington, D. C.	F. Eichenlaub	22	7,430	1	..	0	0	1	7/1	1-3	$15
Research and Educational Hospitals *[3]	Chicago	F. E. Senear	42	14,736	1	1	0	0	0	7/1	1-3	$150
University of Chicago Clinics *[1,4]	Chicago	S. W. Becker	145	15,548	2	2	1	2	1	7/1	1-3	None
University Hospitals *[1,4]	Iowa City, Iowa	R. Nomland	331	3,407	4	3	1	1	0	1/1	1-3	$20.83
Charity Hospital *[1,3]	New Orleans	M. Van Studdiford	599	160,329	19	5	5	5	0	7/1	1-3	$25
Boston City Hospital *[3]	Boston	H. Boardman	142	54,069	2	0	1	0	0	Varies	1	$108
Massachusetts General Hospital *[4]	Boston	C. G. Lane	262	18,488	6	4	1	1	1	7/1	1-3	....
University Hospital *[1,4]	Ann Arbor, Mich.	U. Wile	804	10,224	7	4	2	1	1	7/1	1-4	$25
City of Detroit Receiving Hospital *[1,4]	Detroit	L. W. Shaffer	2889	9014	.....	..	0	1	1	7/15	1-3	$75
Minneapolis General Hospital *[1,4]	Minneapolis	S. E. Sweitzer	392	18,022	5	2	0	0	2	1/1, 7/1	3	$25
University Hospitals *[1]	Minneapolis	H. E. Michelson	169	8,901	1	1	0	0	3	7/1	1-3	$50
Mayo Foundation [4]	Rochester, Minn.	P. A. O'Leary	1,663	10,478	6	5	..	..	9	Quart.	3-5	$85
Barnard Free Skin and Cancer Hospital *[1]	St. Louis	M. F. Engman	55	12,938	.....	..	1	0	0	7/1	1-3	$25
Kings County Hospital *[3]	Brooklyn	L. J. Frank	668	31,165	.....	..	1	0	0	10/1	1	$100
Buffalo General Hospital *[1,3]	Buffalo	E. D. Osborne	392	11,079	3	1	1	0	0	7/1	1+	$25
Edward J. Meyer Memorial Hospital *[4]	Buffalo	E. D. Osborne	366	30,477	6	3	1	1	0	7/1	3	$50
Bellevue Hospital *[1,4]	New York City	F. C. Combes	1,474	1,489	.....	..	1	2	0	1/1, 7/1	1+	....
Columbia Presbyterian Medical Center *[4,7]	New York City	J. G. Hopkins	31	50,378	.....	..	0	0	1	Varies	1-3	....
Montefiore Hospital *[1,2]	New York City	F. Wise	21	1,684	3	2	1	0	0	7/1	1-2	$25
New York City Hospital *[2]	New York City	A. B. Cannon	731	18,329	10	2	1	0	0	7/1	1	$50
New York Post-Graduate Medical School and Hospital *[4]	New York City	G. M. MacKee	259	107,540	1	..	1	2	0	1/1, 7/1	2	....
Duke Hospital *[1,4]	Durham, N. C.	J. L. Callaway	190	5,178	.....	..	1	0	0	7/1	1	$41
Cincinnati General Hospital *[4]	Cincinnati	H. L. Chassen	451	26,692	10	5	2	1	0	7/1	2	*
City Hospital *[1,4]	Cleveland	H. N. Cole	432	23,832	7	4	1	2	0	7/1	1-3	$40
University Hospitals *[1,4]	Cleveland	H. N. Cole	226	26,688	3	2	1	1	0	7/1	2	$25
University of Oregon Medical School Hospitals and Clinics *[1,3]	Portland, Ore.	L. B. Kingery	14	22,579	.....	..	2	0	0	7/1	3	$30
Graduate Hospital of the University of Pennsylvania *[1,7]	Philadelphia	F. D. Weidman	50	24,813	.....	..	0	0	1	6/1	1-3	None
Hosp. of the University of Pennsylvania *[4]	Philadelphia	J. H. Stokes	224	23,071	1	1	1	0	0	7/1	2-5	None
Jefferson Medical College *[3,7]	Philadelphia	F. C. Knowles	12	20,735	.....	..	0	0	1	7/1	1	$50
Skin and Cancer Hospital [2]	Philadelphia	A. Strickler	189	60,850	.....	..	1	0	0	7/1	1	$30
University of Virginia Hospital *[4]	Charlottesville, Va.	D. C. Smith	162	10,452	3	2	1	1	0	7/1	1	$50

5. EPILEPSY

Monson State Hospital [1]	Palmer, Mass.	M. B. Hodskins	1,665	63	85	28	1	0	0	7/1	1	None

6. FRACTURES

Denver General Hospital *[5]	Denver	H. W. Wilcox	1,495	1,812	40	20	1	0	0	7/1	1	$50
City of Detroit Receiving Hospital *[7]	Detroit	A. D. LaFerte	1,014	12,178	.....	..	1	1	0	7/1	2	....
Presbyterian Hospital	New York City	W. Darrach	467	.....	.....	..	1	2	0	1/1, 7/1	1	$50
Rhode Island Hospital *	Providence, R. I.	M. S. Danforth	601	7,331	23	4	2	0	0	7/1	1	$50

7. MALIGNANT DISEASES

Albert Steiner Clinic for Cancer and Allied Diseases [1]	Atlanta, Ga.	R. H. Fike	559	43,578	35	32	2	0	0	7/1	1-2	$75
Michael Reese Hospital *	Chicago	E. Uhlmann	2,256	.....	.....	..	1	0	0	7/1	1-3	$25
Massachusetts General Hospital *	Boston	.....	.....	.....	..	1	0	0	1	.....	1	.....
New England Deaconess Hospital	Boston	L. S. McKittrick	679	365	.....	..	2	0	0	3/1, 7/1	1	$83.33
Westfield State Sanatorium [1]	Westfield, Mass.	C. Binnig	709	6,394	61	41	2	0	0	Varies	1	$150
Pondville Hospital at Norfolk	Wrentham, Mass.	G. L. Parker	1,484	7,650	150	105	10	0	0	Varies	1+	$150
Eloise Hospital *[1]	Eloise, Mich.	W. J. Seymour	449	383	208	104	1	0	0	7/1	1	$111.24
Barnard Free Skin and Cancer Hospital	St. Louis	W. E. Leighton and F. J. Taussig	1,061	10,441	20	7	1	2	0	7/1	1	$25
Jersey City Hospital *[1]	Jersey City, N. J.	J. B. Faison	578	4,619	212	14	1	0	0	1/1, 7/1	1	$75
Brooklyn Cancer Institute of Kings County Hospital	Brooklyn	W. E. Howes	908	8,517	198	47	6	0	0	7/1, 9/1	1	$75
State Institute for the Study of Malignant Diseases	Buffalo	B. T. Simpson	1,676	39,422	36	24	4	0	0	7/1	1-2	$150
Meadowbrook Hospital *	Hempstead, N. Y.	A. C. Martin	568	4,653	98	48	1	0	0	7/1	1	$75

Numerical and other references will be found on page 1344.

7. MALIGNANT DISEASES—(Continued)

	Chief of Service	Inpatients Treated [a]	Outpatient Visits	Deaths	Autopsies	Residents	Assistant Residents	Fellows	Service Begins	Length of Service (Years)	Beginning Stipend
Memorial Hospital for the Treatment of Cancer and Allied Diseases	New York City	C. P. Rhoads	4,617	77,445	209	88	4	12	10	1/1, 7/1	1-2	$15
New York City Cancer Institute Hospital	New York City	M. Lenz	1,127	9,213	565	88	9	0	0	1/1	1	$100
Duke Hospital [a1,7]	Durham, N. C.	R. Jones	1,381	1,769	.....	..	1	1	0	7/1	3	None
American Oncologic Hospital	Philadelphia	G. M. Dorrance	574	7,886	33	23	0	0	3	7/1	1-3	$100
Jeanes Hospital [b]	Philadelphia	R. W. Tenhan	617	8,264	66	39	2	0	0	7/1	1-3	$125

8. MEDICINE

Revision of list is now taking place in collaboration with the American Board of Internal Medicine and the American College of Physicians

Hillman Hospital *	Birmingham, Ala.	J. S. McLester and H. R. Carter, Jr.	2,207	19,350	429	125	1	0	0	7/1	1	$50
Norwood Hospital [a1]	Birmingham, Ala.	E. D. Lineberry	849	3,747	51	24	1	0	0	7/1	1	$150
Employees' Hospital of the Tennessee Coal, Iron and Railroad Company *	Fairfield, Ala.	G. F. Walsh	2,242	20,742	149	40	2	0	0	7/1	1	$150
Baptist State Hospital *	Little Rock, Ark.	F. W. Harris	2,234	.....	130	18	1	0	0	7/1	1-3	$50
General Hospital of Fresno County *	Fresno, Calif.		1,304	33,386[b]	315	93	1	1	0	7/1	1	$65
Cedars of Lebanon Hospital *	Los Angeles		2,118	9,183	177	58	1	0	0	7/1	1	$75
Los Angeles County Hospital [a1]	Los Angeles	D. D. Comstock	11,479	63,985	1,888	928	18	0	0	7/1	3	$10
White Memorial Hospital *	Los Angeles	D. D. Comstock	1,395	26,987	97	41	1	0	0	7/1	1-3	$40
Highland-Alameda County Hospital [a1]	Oakland, Calif.		2,667	.....	.....	199	1	1	0	7/1	1-3	$40
Collis P. and Howard Huntington Memorial Hospital *	Pasadena, Calif.	E. D. Kremers	2,197	6,136	189	..	1	0	0	7/1	1	$110
San Diego County General Hospital *	San Diego, Calif.	C. L. Stealy	4,494	15,893	501	126	2	0	0	7/1	1	$115
Children's Hospital [a1]	San Francisco	D. Atkinson	577	3,270	27	..	1	0	0	7/1	1	$25
Mount Zion Hospital *	San Francisco	A. L. Cohn and J. J. Sampson	1,218	6,827	97	51	1	2	0	7/1	1	$50
St. Luke's Hospital *	San Francisco	H. P. Hill	1,949	3,783[b]	153	58	1	0	0	7/1	1	$75
San Francisco Hospital [a1]	San Francisco	L. H. Briggs and G. D. Barnett	4,402	.....	.....	..	0	6	0	7/1	1	....
Stanford University Hospitals [a1]	San Francisco	A. L. Bloomfield	2,104	23,021	54	18	1	6	0	7/1	1	$25
University of California Hospital [a1]	San Francisco	W. J. Kerr	1,752	41,020	71	60	1	5	0	8/1	1	$25
Santa Clara County Hospital *	San Jose, Calif.	G. Gray	1,524	26,949[b]	.....	125	2	0	0	7/1	1	$75
Fairmount Hospital of Alameda County [1]	San Leandro, Calif.		2,055	14,786	410	155	1	2	0	7/1	1	$95
Colorado General Hospital *	Denver	J. J. Waring	1,081	26,711	139	124	0	2	0	8/1	2	$40
Denver General Hospital *	Denver	M. Katzman	3,084	1,594	494	150	2	0	0	7/1	1-2	$50
Fitzsimons General Hospital, Denver	Denver		....	....	....	....	....	....	....	.....[c]	....	....
Grace Hospital *	New Haven, Conn.	S. J. Goldberg	970	2,022	128	45	1	0	0	7/1	3	$90 [a]
New Haven Hospital *	New Haven, Conn.	F. G. Blake	2,696	10,589	269	143	1	4	0	1/1, 7/1	1+	[a]
Central Dispensary and Emergency Hosp. *	Washington, D. C.	H. Kaufman	1,849	16,563[b]	93	31	1	1	0	7/1	1	$75
Freedmen's Hospital [a1]	Washington, D. C.	J. E. Hall	772	11,291	134	52	1	4	0	10/1	1-3	$20
Gallinger Municipal Hospital [a1]	Washington, D. C.	W. M. Yater	2,737	1,725	418	183	2	8	0	7/1	1	....
Garfield Memorial Hospital *	Washington, D. C.	B. F. Weems	3,216	2,534	185	..	1	1	0	7/1	1-2	$50
Georgetown University Hospital *	Washington, D. C.	W. M. Yater	1,305	11,120	90	50	1	1	0	7/1	1-3	$75
George Washington University Hospital *	Washington, D. C.	W. O. Roedorf	1,061	26,711	139	124	0	2	0	8/1	2	$40
Duval County Hospital *	Jacksonville, Fla.	L. Limbaugh	777	.....	206	57	1	2	0	7/1	1	$30
James M. Jackson Memorial Hospital *	Miami, Fla.		4,953	12,418	519	146	1	2	0	7/1	1	$75
Grady Hospital *	Atlanta, Ga.		2,665	73,452	451	179	2	9	0	7/1	1	$40
St. Joseph Infirmary [a1]	Atlanta, Ga.	J. Hines	1,320	1,985	39	10	1	0	0	7/1	1-3	$150
University Hospital [a1]	Augusta, Ga.	V. P. Sydenstricker	2,318	3,838	225	51	1	3	0	7/1	1-2	$40
Emory University Hospital *	Emory University, Ga.		9,660	.....	63	21	..	..	..	.....	....	....
Cook County Hospital [a1]	Chicago	C. C. Maher	19,806	31,027	3,920	667	27	0	2	1/1, 7/1	1-3	$25
Mercy Hospital-Loyola University Clinics *	Chicago	I. F. Volini	1,459	25,234	98	30	1	0	0	7/1	1	$50
Michael Reese Hospital [a1]	Chicago	J. Meyer	3,137	14,229	186	98	2	3	0	1/1, 7/1	1-2	$50
Mount Sinai Hospital [a1]	Chicago		1,358	10,597	135	54	1	0	0	6/15	1	$30
Norwegian-American Hospital [a1]	Chicago	D. E. Markson	1,453	.....	130	36	1	0	0	7/1	1	$35
Passavant Memorial Hospital [a1]	Chicago	N. C. Gilbert	1,976	36,976	58	41	3	0	3	7/1	1	....
Presbyterian Hospital *	Chicago	W. Post	3,606	16,679[b]	121	72	2	0	0	7/1	1-3	$50
Provident Hospital [a1]	Chicago	A. F. Connor	666	37,957	58	27	1	0	0	7/1	1-3	$50
Research and Educational Hospitals *	Chicago	R. W. Keeton	451	.....	42	40	4	0	0	7/1	1-3	$50
St. Luke's Hospital [a1]	Chicago	R. W. Keeton	2,837	13,318	135	77	3	0	0	7/1	1-3	$25
University of Chicago Clinics [a1]	Chicago	G. F. Dick	2,260	36,751	95	65	1	3	9	1/1, 7/1, 10/1	1-3	None
Wesley Memorial *	Chicago	G. P. Marquardt	665	.....	39	28	2	0	0	7/1	1+	$35
Evanston Hospital *	Evanston, Ill.	L. D. Snorf	2,424	9,925	130	97	2	0	0	7/1, 9/1	1-2	$50
St. Francis Hospital *	Evanston, Ill.	R. W. Keeton	2,009	.....	155	47	1	0	0	7/1	1	$41
St. Francis Hospital *	Peoria, Ill.	J. E. McCorvie	2,622	....	241	67	1	0	0	7/1	1	$75
Indianapolis City Hospital *	Indianapolis	C. J. Clark	2,171	35,007	400	206	3	0	5	7/1	1-3	$41.64
Indiana University Medical Center [a1]	Indianapolis	O. Richey	1,875	8,042	141	71	2	2	0	7/1	1-3	$66.34
University Hospital [a1]	Iowa City, Iowa	F. M. Smith	2,605	4,308	154	93	1	4	0	7/1	1	$20.83
University of Kansas Hospitals [a1]	Kansas City, Kan.	R. H. Major	1,495	16,226	111	73	1	2	0	7/1	1-3	$50
Louisville General Hospital [a1]	Louisville, Ky.	J. W. Moore	1,693	33,979	373	103	3	6	0	7/1	1-3	$43.91
Charity Hospital [a1]	New Orleans		11,740	104,406	1,479	428	13	29	0	7/1	1-4	$25
Touro Infirmary *	New Orleans	R. Lyons	1,468	24,428	126	57	2	0	1	7/1	1-2	$25
Baltimore City Hospitals *	Baltimore	J. T. King, Jr.	1,945	.....	442	252	1	5	0	7/1	1	$12.50
Church Home and Infirmary [a1]	Baltimore	Z. R. Morgan	691	908	74	31	1	0	0	7/1	1	$25
Hospital for Women [a1]	Baltimore	W. Baetjer	598	3,344	32	7	1	0	0	7/1	1	$50
Johns Hopkins Hospital [a1]	Baltimore	W. T. Longcope	4,558	39,423	255	186	1	6	0	7/1, 9/1	1-6	....
Maryland General Hospital *	Baltimore	E. B. Freeman	780	910	106	15	1	0	0	7/1	1-2	$25
Mercy Hospital *	Baltimore	M. C. Pincoffs	1,416[b]	2,780[b]	.....	..	1	3	0	7/1	2	$25
Provident Hospital and Free Dispensary *	Baltimore	E. B. Jarrett	444	652	79	17	1	0	0	7/1	1	$35
St. Agnes' Hospital *	Baltimore	L. P. Gundry	984	1,297	102	22	1	0	0	7/1	1	$50
St. Joseph's Hospital *	Baltimore	F. J. Geraghty	928	2,689	121	19	1	2	0	7/1	2-3	$10
Sinai Hospital *	Baltimore	C. W. Austrian	1,585	9,754	155	52	1	2	0	7/1	1	$50
South Baltimore General Hospital *	Baltimore	G. McLean	519	2,002	77	11	1	1	0	7/1	1-2	....
Union Memorial Hospital *	Baltimore	W. C. Baetjer	1,083	.....	140	26	1	4	0	7/1	1-4	$12.50
University Hospital *	Baltimore	M. C. Pincoffs	1,690	6,033	129	61	1	3	0	7/1	1-3	$25
West Baltimore General Hospital *	Baltimore	L. Krause	672	1,082	76	33	2	0	0	7/1	2	$30
Beth Israel Hospital *	Boston		2,028	10,187	151	74	1	0	0	7/1	1-2	$79.16
Boston City Hospital *	Boston	G. R. Minot	11,744	.....	1,503	902	2	9	8	Varies	1+	$83.33
Joseph H. Pratt Diagnostic Clinic [1]	Boston		1,671	650	24	12	4	0	0	7/1	1-2	$41.67
Lahey Clinic [7]	Boston	L. M. Hurxthal and F. N. Allen	3,000	30,000	.....	..	0	0	16[f]	1/1, 7/1	1-2	$100[e]
Massachusetts General Hospital [a1]	Boston	J. H. Means	2,485	27,607	168	116	4	0	0	.....	....	....
Massachusetts Memorial Hospitals *	Boston	C. S. Keefer	853	5,376	80	54	1	4	3	7/1	1+	$50
Peter Bent Brigham *	Boston		2,361	40,239	239	147	1	4	0	Varies	1-2	$41.67
Worcester City Hospital *	Worcester, Mass.	G. W. Haigh	2,014	9,121	348	95	1	0	0	7/1	1	$75
University Hospital [a1]	Ann Arbor, Mich.	C. C. Sturgis	3,741	23,030	165	123	7	8	7	7/1	1-4	$25
Alexander Blain Hospital	Detroit	R. L. Fisher	483	23,124	21	8	1	0	0	7/1	1-2	$100
City of Detroit Receiving Hospital [a1]	Detroit	G. B. Myers	3,099	14,507	538	290	1	6	3	7/15	1-3	$75

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8. MEDICINE—(Continued)

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		Chief of Service	Inpatients Treated[a]	Outpatient Visits	Deaths	Autopsies	Residents	Assistant Residents	Fellows	Service Begins	Length of Service (Years)	Beginning Stipend
Grace Hospital *	Detroit	G. B. Hoops	3,245	9,287	275	71	1	1	0	7/1, 9/1	1-2	$100
Harper Hospital *	Detroit	H. A. Freund	2,986	.....	228	68	1	6	0	7/1	1	$5
Henry Ford Hospital *	Detroit	F. J. Sladen	5,846	96,612	244	98	8	8	0	7/1	1-5	$130
Providence Hospital *	Detroit	M. McQuiggan	1,950	.....	302	78	1	1	0	7/1	1	....
St. Mary's Hospital *.	Detroit	W. J. Wilson, Sr	2,072	3,276	279	77	1	0	0	7/1	2-3	$125
Woman's Hospital[1]	Detroit	B. I. Johnstone	546	256	36	14	..	..	0	7/1	1-2	$100
Eloise Hospital and Infirmary *[1]	Eloise, Mich	M. R. McQuiggan	4,711	31,767	545	246	3	8	2	7/1	1	$94.58
Hurley Hospital *	Flint, Mich	W. Marshall	1,995	.....	215	75	0	1	0	7/1	1	$41.66
Blodgett Memorial Hospital *[1]	Grand Rapids, Mich	A. M. Hill	704	.....	58	23	1	0	0	1/1, 7/1	1	....
Butterworth Hospital *	Grand Rapids, Mich	A. J. Baker	1,314	.....	152	62	1	0	0	7/1	1-3	$100
Minneapolis General Hospital *[1]	Minneapolis	G. Fahr	2,494	25,881	380	182	0	0	8	1/1, 1/7	1-3	$25
University Hospitals *	Minneapolis	C. J. Watson	1,230	28,160	110	80	0	0	6	7/1	1-3	$60
Mayo Foundation	Rochester, Minn	(See page 1344)										
Ancker Hospital *	St. Paul, Minn	A. Hoff	1,957	25,073	320	199	6	0	0	7/1	1	$50
St. Louis County Hospital *.	Clayton, Mo	H. S. Liggett	2,240	30,242	187	105	1	1	0	7/1	1-3	$25
Kansas City General Hospital *.	Kansas City, Mo	J. V. Bell	2,080	18,663	312	207	3	0	0	7/1	2	$50
St. Joseph Hospital *[1]	Kansas City, Mo	H. L. Jones	1,358	.....	.....	..	1	0	0	7/1	1-3	$50
St. Mary's Hospital *[1]	Kansas City, Mo	F. P. Stookey	1,455	.....	120	72	1	0	0	7/1	1	$75
Barnes Hospital *[1]	St. Louis	.....	4,110	.....	192	119	1	3	0	7/1	1-3	$25
De Paul Hospital *.	St. Louis	E. P. Buddy	1,497	1,064	164	51	0	1	0	.....	...	....
Homer G. Phillips Hospital *[1]	St. Louis	B. L. Taussig	2,358	18,530	385	85	1	2	0	7/1	1-3	$75
Jewish Hospital *[1]	St. Louis	L. Sale	2,820	8,990	160	55	1	2	0	7/1	1	$30
St. Anthony's Hospital *	St. Louis	E. V. Powell	1,320	.....	105	28	1	0	0	7/1	1	....
St. Louis City Hospital *[1]	St. Louis	D. Sexton	3,722[b]	24,030[b]	.....	..	3	6	0	7/1	1-2	$50
St. Luke's Hospital *.	St. Louis	A. B. Day	956	.....	65	25	0	1	0	7/1	1	$50
St. Mary's Group of Hospitals *.	St. Louis	R. A. Kinsella	2,422	13,275	197	94	0	4	0	7/1	3	$25
Creighton Memorial St. Joseph's Hospital *[1]	Omaha	C. Sachs	1,505	7,253	133	32	1	0	0	7/1	1	$50
Jersey City Hospital *[1]	Jersey City, N. J	T. J. White	5,308	31,730	872	144	1	1	0	1/1, 7/1	1	$75
Albany Hospital *[1]	Albany, N. Y	L. W. Gorham	1,594	.....	132	82	1	2	1	7/1	2+	$25
Coney Island Hospital *.	Brooklyn	T. J. Longo	1,586	39,782	252	47	1	0	0	7/1	1	$100
Cumberland Hospital *	Brooklyn	J. J. Guttman	1,254	44,078	177	64	1	1	0	1/1, 7/1	1	$18
Greenpoint Hospital *[1]	Brooklyn	A. Klein	1,010	25,616	168	21	1	0	0	9/1	1	$18
Jewish Hospital *[1]	Brooklyn	.....	1,733	42,273	210	80	2	0	0	7/1	1	$25
Kings County Hospital *.	Brooklyn	H. Moses and J. Crawford	17,597	99,965	.....	..	4	4	0	1/1, 7/1	1-2	$18
Long Island College Hospital *.	Brooklyn	T. Howard	1,014	18,019	122	..	1	2	0	7/1	3-4	$22.50
Norwegian Lutheran Deaconesses' Home and Hospital *[1]	Brooklyn	B. A. Fedde and H. W. Gissel	1,076	664	.....	..	1	0	0	7/1	1	$25
Buffalo General Hospital *[1]	Buffalo	A. H. Aaron	2,494	.....	316	127	1	7	0	7/1	1	$25
Edward J. Meyer Memorial Hospital *[1]	Buffalo	D. K. Miller	2,371	29,127	374	120	1	5	0	7/1	4	$59
Millard Fillmore Hospital *[1]	Buffalo	J. Hoffman	1,018	1,741	79	22	1	0	0	7/1	1	$25
Mary Imogene Bassett Hospital *.	Cooperstown, N. Y	G. M. Mackenzie	780	.....	51	30	1	0	0	7/1	1	$125
Meadowbrook Hospital *[1]	Hempstead, N. Y	E. C. Jessup	727	.....	78	39	1	0	0	7/1	1	$50
Queens General Hospital *[1]	Jamaica, N. Y	W. Victor	2,272	40,830	438	256	1	1	0	7/1	1	$100
Charles S. Wilson Memorial Hospital *.	Johnson City, N. Y	E. M. Jones	.....	.....	.....	..	3	0	0	.....	...	....
New Rochelle Hospital *.	New Rochelle, N. Y	C. Read	1,554	2,998	162	57	1	0	0	7/1	1	$50
Bellevue Hospital *[1]	New York City	.....	11,509	4,134	.....	..	3	0	0	.....	...	....
Flower and Fifth Avenue Hospitals *[1]	New York City	L. J. Boyd	1,898	11,898	89	20	1	0	4	7/1	1	$25
Metropolitan Hospital *	New York City	L. J. Boyd	3,122	18,469	517	146	2	0	0	7/1	1-2	$100
Montefiore Hospital *[1]	New York City	L. Lichtwitz	450	3,402	102	62	1	2	2	1/1, 7/1	1-1½	....
Mount Sinai Hospital *[1]	New York City	.....	.....	.....	.....	..	1	1	0	1/1, 7/1	1	$50
New York City Hospital *.	New York City	J. H. Cudmore and M. A. Ramirez	2,717	19,355	455	147	2	0	0	7/1	1	$50
New York Hospital *.	New York City	D. P. Barr	1,476	59,752	97	64	1	9	..	7/1	1-5	$25
New York Infirmary for Women and Children *[1]	New York City	D. M. Manter	322	8,086	9	3	1	0	0	9/1	1	$45
New York Polyclinic Medical School and Hospital *.	New York City	.....	978	3,206	1	..	1	0	0	7/1	2	....
New York Post-Graduate Medical School and Hospital *[1]	New York City	I. S. Wright	1,955	51,781	85	31	1	0	0	7/1	1	$90
Presbyterian Hospital *[1]	New York City	W. W. Palmer	4,338	.....	238	120	1	3	0	7/1	1	$41.67
St. Luke's Hospital *.	New York City	F. W. Bishop and G. M. Goodwin	2,775	53,857	250	118	1	5	0	1/1, 7/1	1-2	...
Welfare Hospital for Chronic Diseases *[1]	New York City	.....	2,046	1,057	360	155	7	11	21	7/1	1+	$50
Genesee Hospital *	Rochester, N. Y	D. B. Jewett	1,141[b]	5,569	.....	..	1	0	0	7/1	1	$75
Rochester General Hospital *.	Rochester, N. Y	C. P. Thomas	1,617	4,652	120	63	0	1	0	7/1	1	$50
St. Mary's Hospital *.	Rochester, N. Y	B. J. Duffy	2,834	4,376	154	25	1	0	0	7/1	1	$50
Strong Memorial and Rochester Municipal Hospitals *[1]	Rochester, N. Y	W. S. McCann	3,679	26,150	383	257	4	6	0	7/1	1-4	$41.67
Hospital of the Good Shepherd *.	Syracuse, N. Y	E. C. Reifenstein	1,196[b]	.....	.....	..	1	1	0	7/1	1	$20.83
Grasslands Hospital *	Valhalla, N. Y	M. D. Tonart	855	5,967	189	118	1	1	0	7/1	1-2	$75
Duke Hospital *[1]	Durham, N. C	F. M. Hanes	3,667	23,094	129	87	1	13	0	7/1	1	$41
Watts Hospital *	Durham, N. C	.....	.....	.....	.....	..	..	..	..	.....	...	....
City Hospital *	Winston-Salem, N. C	.....	2,082	8,317	233	83	2	0	0	7/1	1-2	$50
North Carolina Baptist Hospital *.	Winston-Salem	T. R. Harrison	710	.....	42	22	5	0	0	7/1	1-6	$42
Trinity Hospital *[1]	Minot, N. D	P. H. Rowe	1,100	.....	72	58	1	0	0	7/1	1	$50
City Hospital *	Akron, O	.....	2,480	6,499	238	90	1	0	0	7/1	2	$60
Mercy Hospital *	Canton, O	J. D. O'Brien	1,904	.....	158	44	1	1	0	7/1	1-2	$50
Christ Hospital *	Cincinnati	D. A. Tucker	2,191	3,832	171	49	4	0	0	6-24	1-3	$75
Cincinnati General Hospital *[1]	Cincinnati	M. A. Blankenhorn	2,482	42,800	548	298	1	14	0	7/1	1-3	*
Deaconess Hospital *	Cincinnati	D. Osborn and H. H. Shook	2,565	.....	133	26	1	0	0	7/1	1	$75
Good Samaritan Hospital *.	Cincinnati	G. Topmoeller	4,838	582	230	80	1	1	0	7/1	1-2	$40
Jewish Hospital *[1]	Cincinnati	W. Stix	1,757	.....	142	37	2	..	..	6/28	1-2	$45
City Hospital *[1]	Cleveland	R. W. Scott	2,679	37,477	523	227	2	10	0	7/1	1-3	$40
Cleveland Clinic Foundation Hospital *.	Cleveland	R. L. Haden	2,570	.....	82	27	0	0	16	7/1	1-3	$65
Mount Sinai Hospital *[1]	Cleveland	S. S. Berger	1,735	21,343	146	69	1	0	0	7/1	1	$60
St. Alexis Hospital *.	Cleveland	H. F. Paryzek	2,251	8,944	209	67	1	0	0	7/1	1	$65
St. John's Hospital *.	Cleveland	F. E. Steyer	1,553	.....	107	23	1	0	0	7/1	1-2	$60
St. Luke's Hospital *.	Cleveland	C. T. Way	2,062	23,020	194	94	1	2	0	6/25	2	....
St. Vincent Charity Hospital *.	Cleveland	F. C. Oldenburg	2,176	18,805	227	64	0	2	0	7/1	1-2	$50
University Hospitals *[1]	Cleveland	J. T. Wearn	3,800	31,390	311	190	1	6	5	7/1	2	$25
St. Francis Hospital *	Columbus, O	L. H. Van Buskirk	821	624	155	77	1	0	0	7/1	1-2	$25
Starling-Loving University Hospital *.	Columbus, O	C. A. Doan	1,106[b]	23,502[b]	.....	..	1	3	1	7/1	1	$25
Miami Valley Hospital *.	Dayton, O	B. Olch	1,105	.....	104	77	1	0	0	7/1	1	$75
Huron Road Hospital *[1]	East Cleveland, O	.....	1,269	4,172	102	48	1	0	0	7/1	1	....
Lucas County General Hospital *.	Toledo, O	F. Meyers	1,630	28,694	335	113	1	0	0	7/1	1+	$75
St. Vincent's Hospital *.	Toledo, O	C. W. Waggoner	1,939	3,608	174	53	1	0	0	1/1	1	$100
St. Elizabeth Hospital *.	Youngstown, O	A. M. Rosenblum	2,252	1,052	207	29	1	0	0	7/1	1	$85

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8. MEDICINE—(Continued)

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Youngstown Hospital *	Youngstown, O.	W. H. Bunn	3,977	1,122	339	90	1	0	0	7/1	1	$75
St. Anthony Hospital *	Oklahoma City	P. M. McNeil	1,785	.....	...	...	1	0	0	7/1	1	$60
University Hospitals *	Oklahoma City	A. W. White	917	16,041	139	59	1	1	0	7/1	1	$50
University of Oregon Medical School Hospitals and Clinics *[2]	Portland, Ore.	L. Selling	3,669	25,654	389	245	1	2	0	7/1	3	$30
Abington Memorial Hospital *	Abington, Pa.	G. M. Piersol	1,403	1,485	135	47	1	0	0	7/1	1+	$25
Bryn Mawr Hospital *	Bryn Mawr, Pa.	F. C. Sharpless	892	.....	65	30	1	0	0	10/1	1	$30
George F. Geisinger Memorial Hospital *[2]	Danville, Pa.	W. J. Stainsby	1,659	7,738	139	45	1	0	0	9/1	1	$50
Germantown Dispensary and Hospital *	Philadelphia		1,718	19,174	104	48	1	0	0	9/1	1-3	$50
Graduate Hospital of the University of Pennsylvania *	Philadelphia	G. M. Piersol	1,034	14,878	83	29	1	0	0	7/1	1	None
Hahnemann Hospital *	Philadelphia	G. H. Wells	1,312	11,029	214	96	1	0	0	9/1	2	$50
Hospital of the University of Pennsylvania *	Philadelphia	O. H. P. Pepper	2,130	22,415	101	66	1	0	5	7/1	1+	None
Jefferson Medical College Hospital *	Philadelphia	H. A. Reimann	1,395	7,190	144	66	1	0	0	9/1	1	$50
Jewish Hospital *[1]	Philadelphia	J. C. Doane	1,724	5,102	195	108	1	0	0	6/15	1-2	None
Mount Sinai Hospital *[1]	Philadelphia		1,728	.....	133	41	1	1	0	7/15	2-3	$25
Pennsylvania Hospital *	Philadelphia	D. L. Farley and G. G. Duncan	1,817	9,055	189	126	2	0	0	9/1	1-2	$20
Philadelphia General Hospital *[1]	Philadelphia		5,317	22,008	1,099	...	2	0	1	8/1	1-2	$50
Presbyterian Hospital *	Philadelphia		1,398	3,855	145	105	1	0	0	9/1	1+	None
Temple University Hospital *	Philadelphia		1,423	8,457	128	46	3	0	0	7/1	3	$40
Woman's Hospital *[1]	Philadelphia	M. H. Easby	707	3,257	30	21	1	0	0	7/1	1	$25
Allegheny General Hospital *	Pittsburgh	E. W. Willetts	1,601	10,332	258	56	1	0	0	9/1	1	$85
Elizabeth Steel Magee Hospital	Pittsburgh	J. D. Heard	1,565	g	78	24	1	1	0	9/1	2	$83.33
Mercy Hospital *	Pittsburgh	W. W. Maclachlan	1,797	.....	248	..	1	0	0	9/1	1	....
St. Francis Hospital *	Pittsburgh	A. W. Sherrill and F. B. Utley	1,352	2,411	197	41	2	0	0	9/1	1-3	$35
Reading Hospital *	Reading, Pa.	W. S. Bertolet	1,078	1,261	169	122	1	0	0	9/1	1	$83
Robert Packer Hospital *	Sayre, Pa.	S. D. Dunklin	1,697	3,919	76	35	..	..	3	9/1	1	$50
Roper Hospital *	Charleston, S. C.	R. Wilson	1,981	20,485	244	96	1	2	1	7/1	1-4	$10
John Gaston Hospital *	Memphis, Tenn.	C. H. Sanford	2,872	20,949	474	75	1	2	0	7/1	1	$33
George W. Hubbard Hospital *	Nashville, Tenn.	E. L. Turner	682	3,851	72	13	1	0	0	7/1	2	$75
Nashville General Hospital *	Nashville, Tenn.	O. N. Bryan	1,591	18,211	175	65	1	0	0	7/1	1-2	$25
Vanderbilt University Hospital *	Nashville, Tenn.	H. J. Morgan	1,708	36,491	112	59	1	3	0	7/1	1	$50
Baylor University Hospital *[1]	Dallas, Tex.	H. M. Winana	3,501	5,556	146	42	1	2	0	7/1	1-3	$37.50
Parkland Hospital *[1]	Dallas, Tex.	W. G. Reddick	1,503	34,618	241	54	2	2	0	.....	...	$25
John Sealy Hospital *[1]	Galveston, Tex.	C. T. Stone	1,924	15,284	.....	..	1	5	0	7/1	1-3	$25
Hermann Hospital *	Houston, Tex.	F. R. Hammond	1,013	4,784	83	40	1	1	0	7/1	1-2	$50
Jefferson Davis Hospital *	Houston, Tex.	S. B. Weil	2,117	15,359	667	120	1	0	0	7/1	1	$50
Southern Pacific Hospital	Houston, Tex.	M. D. Levy	866	9,995	27	12	1	0	0	7/1	1-2	$100
Mary Fletcher Hospital *	Burlington, Vt.	C. H. Beecher	1,014	.....	50	22	1	0	0	7/1	1	$150
University of Virginia Hospital *	Charlottesville, Va.	E. M. Landis	2,751	8,887	127	40	1	2	1	7/1	1	$50
Chesapeake and Ohio Hospital	Clifton Forge, Va.		1,443	.....	...	...	1	0	0	7/1	3	$50
Norfolk General Hospital *	Norfolk, Va.		2,575	3,030	177	43	1	0	0	7/1	1-2	$50
Medical College of Virginia, Hospital Division *[1]	Richmond, Va.	W. B. Porter	2,053	.....	254	106	2	3	0	7/1	1	....
King County Hospital *	Seattle, Wash.	C. E. Watts	2,569	58,738	579	208	1	0	0	7/1	1	$150
Virginia Mason Hospital *	Seattle, Wash.	J. M. Blackford	2,477	.....	99	54	1	1	0	6/25	1	$50
State of Wisconsin General Hospital *[1]	Madison	W. S. Middleton	4,026	17,841	113	78	3	5	0	7/1	3	$25
Columbia Hospital *	Milwaukee	J. J. Pink	819	.....	48	22	1	0	0	7/1	3-4	$50
St. Joseph's Hospital *	Milwaukee	R. J. Fitzgerald	1,780	.....	...	...	1	0	0	6/15	1	$40
Milwaukee County Hospital *	Wauwatosa, Wis.	F. D. Murphy	5,816	36,381	652	201	3	11	0	7/1, 7/15	1	$50
Queen's Hospital *	Honolulu, T. H.		5,072	.....	166	..	1	0	0	1/1	1	$115

9. MIXED

In addition to the hospitals listed below, all hospitals approved for intern training are likewise accredited for mixed residencies

Baptist Hospital	Birmingham, Ala.	I. Berry	6 960	.....	171	38	5	0	0	7/1	1+	$150
St. Vincent's Hospital [1]	Birmingham, Ala.	F. C. Wilson	3,867	.....	119	25	3	0	0	7/1	1-2	$75
South Highland Infirmary	Birmingham, Ala.	D. S. Moore	4,786	3,962	169	51	4	0	0	7/1	1	$120
St. Margaret's Hospital	Montgomery, Ala.	J. H. Blue	4,755	.....	212	30	2	0	0	7/1	1	$100
St. Mary's Hospital and Sanatorium	Tucson, Ariz.	D. F. Hill	4,505	.....	157	43	4	0	0	7/1	1	$75
Leo N. Levi Memorial Hospital	Hot Springs, Ark.	D. C. Lee	873	21,578	49	11	1	0	0	7/1	1	....
Paradise Valley Hospital and Sanitarium	National City, Calif.	C. E. Nelson	2,463	16,854	100	22	1	0	0	.....	...	....
Sonoma County Hospital [1]	Santa Rosa, Calif.	C. M. Fleissner	2,912	23,118	176	117	1	6	0	7/1	1	$100
St. Mary Hospital	Pueblo, Colo.	J. F. Snedec	2,903	.....	211	18	..	..	..	.....	...	....
Bristol Hospital	Bristol, Conn.		1,955	.....	117	4	1	0	0	.....	...	....
Riverside Hospital	Jacksonville, Fla.	T. Z. Cason	1,495	9,014	38	10	1	0	0	7/1	1	$50
St. Francis Hospital	Blue Island, Ill.	R. Carmichael	2,928	.....	107	30	2	0	0	7/1	1	$150
St. Anthony's Hospital	Rock Island, Ill.	C. M. Murrell	2,629	1,749	160	43	1	0	0	7/1	1	$80
Clinic Hospital (Taylor-Nickel Clinic)	Bluffton, Ind.	C. E. Taylor	1,439	3,218	38	13	2	0	0	7/1	1	$50
St. Mary's Hospital	Evansville, Ind.	G. M. Harris	4,171	.....	191	62	3	0	0	7/1	1	$100
Lafayette Home Hospital	Lafayette, Ind.	D. C. McClelland	3,392	.....	174	44	1	0	0	7/1	1	$85
St. Luke's Methodist Hospital	Cedar Rapids, Ia.	R. Y. Netolicky	4,671	.....	180	41	2	0	0	7/1	1	$125
Bethany Hospital [1]	Kansas City, Kan.	O. W. Davidson	3,278	.....	164	73	2	0	0	7/1	1	....
Jewish Hospital *	Louisville, Ky.	J. W. Helm	2,325	1,774	92	19	2	0	0	7/1	1	$50
Flint-Goodrich Hospital of Dillard Univ.	New Orleans, La.		2,078	55,502	60	6	4	0	0	7/1	1	$50
Long Island Hospital	Boston	J. R. Cunningham	1,992	.....	186	83	1	5	0	.....	1	....
Framingham Union Hospital	Framingham, Mass.	J. C. Merriam	3,482	.....	160	39	2	0	0	Varies	1	$41.67
Malden Hospital	Malden, Mass.	L. J. Walker	4,716	.....	226	29	4	0	0	7/1	1+	$50
Tewksbury State Hospital and Infirmary	Tewksbury, Mass.	L. K. Kelley	2,433	.....	361	51	..	..	..	.....	...	....
St. Joseph's Mercy Hospital	Ann Arbor, Mich.	H. H. Cummings	4,438	.....	135	40	2	0	0	7/1	1	$100
Charles Godwin Jennings Hospital	Detroit	A. F. Jennings	2,171	.....	48	15	2	0	0	7/1	1	$125
Parkside Hospital	Detroit	D. McLean	1,295	.....	101	7	3	0	0	7/1	1	$75
Mercy Hospital	Muskegon, Mich.	G. E. LeFevre	4,966	.....	191	23	..	..	..	.....	...	....
St. Joseph's Mercy Hospital [1]	Pontiac, Mich.	J. H. Gordon	6,324	4,041	247	33	4	0	0	7/1	1	$150
Eitel Hospital	Minneapolis	G. J. Thomas	5,281	.....	116	47	2	0	0	7/1	1	$100
Fairview Hospital [1]	Minneapolis	F. L. Gilles	4,757	.....	176	176	3	0	0	7/1	1	$100
Lutheran Deaconess Home and Hospital	Minneapolis	M. Pfunder	4,924	.....	187	46	1	0	0	7/1	1	$100
Midway Hospital	St. Paul	G. Earl	3,426	3,058	107	57	1	0	0	1/3	1	$100
Northern Pacific Beneficial Association Hospital	St. Paul	A. W. Ide	2,833	12,798	89	19	2	0	0	Varies	1	$250
Alexian Brothers Hospital	St. Louis	L. F. Hayden	1,804	24,587	131	24	2	0	0	7/1	1	$50
Christian Hospital	St. Louis	G. A. Mellies	2,075	.....	105	23	2	0	0	7/1	1	$100
Douglas County Hospital	Omaha	F. J. Wearne	2,885	7,175	320	101	3	0	0	7/1	1	$100
Elliot Hospital	Manchester, N. H.	D. W. Parker	2,357	3,431	78	31	2	0	0	Varies	1	$50
Auburn City Hospital	Auburn, N. Y.	W. B. Wilson	5,232	5,386	217	62	2	0	0	7/1	1	$75
Jewish Sanitarium and Hospital for Chronic Diseases [1]	Brooklyn	B. Koven	236	.....	154	49	2	0	0	7/1	1	$50

Numerical and other references will be found on page 1344.

9. MIXED—(Continued)

In addition to the hospitals listed below, all hospitals approved for intern training are likewise accredited for mixed residencies

	Chief of Service	Inpatients Treated [4]	Outpatient Visits	Deaths	Autopsies	Residents	Assistant Residents	Fellows	Service Begins	Length of Service (Years)	Beginning Stipend
Kingston Hospital [1]	Kingston, N. Y..... O. D. B. Ingalls.....	2,985	.....	205	73	2	0	0	7/1	1	$100
Richmond Memorial Hospital.....	Staten Island, N. Y... M. S. Lloyd.....	2,086	3,333	143	31	4	0	0	Quart.	1	$37.50
Highsmith Hospital	Fayetteville, N. C.... J. F. Highsmith, Jr....	4,012	19,600	207	21	..	..	..	.....	...	....
St. Agnes Hospital.....	Raleigh, N. C..... H. A. Royster.....	1,821	.....	84	27	..	..	..	.....	...	....
Park View Hospital.....	Rocky Mount, N. C... E. S. Boice.....	2,767	16,272	161	30	2	0	0	7/1	1	$50
St. John's Hospital [1]	Fargo, N. D..... D. McKay.....	4,149	1,423	170	48	1	0	0	7/1	1	$150
Glenville Hospital	Cleveland..... M. F. Oman.....	3,750	6,163	150	31	2	0	0	7/1	1	$100
Grant Hospital	Columbus, O..... H. A. Baldwin.....	7,462	1,737	340	55	5	0	0	7/1	1	$120
Mansfield General Hospital.....	Mansfield, O..... L. D. Bonar.....	4,509	.....	235	33	1	0	0	7/1	1	$100
St. Margaret Memorial Hospital.....	Pittsburgh..... G. R. Almquest.....	2,334	6,314	78	27	4	0	0	7/1	1	$100
Medical Arts Hospital.....	Dallas, Tex..... C. Rosser.....	4,258	.....	51	7	2	0	0	7/1	1	$100
St. Mary's Infirmary.....	Galveston, Tex..... F. A. Garbade.....	3,221	1,641	154	37	2	0	0	7/1	1	$100
Methodist Hospital [1]	Houston, Tex..... J. A. Greenwood, Jr....	3,846	1,515	128	50	0	4	0	7/1	1	$80
Wichita Falls Clinic Hospital.....	Wichita Falls, Tex.... Q. B. Lee.....	3,419	77,177	68	11	3	0	0	1/1, 7/1	1-2	$100
Elizabeth Buxton Hospital.....	Newport News, Va.... R. Buxton.....	3,605	20,348	142	49	3	0	0	7/1	1	$75
Grace Hospital	Richmond, Va..... A. L. Herring.....	3,800	.....	74	14	4	0	0	7/1	1	$50
St. Elizabeth's Hospital.....	Richmond, Va..... J. S. Horsley.....	1,606	6,261	47	40	1	0	0	7/1	1-3	$100
St. Luke's Hospital.....	Richmond, Va..... S. McGuire.....	2,670	.....	66	8	3	0	0	7/1	1	$75
Sheltering Arms Hospital.....	Richmond, Va.....	1,342	.....	28	13	1	0	0	.....	...	....
McMillan Hospital	Charleston, W. Va.... J. Basman, Jr.....	2,901	3,140	58	16	2	0	0	7/1	1	$100
St. Francis Hospital.....	Charleston, W. Va.... G. C. Robertson.....	3,021	.....	48	17	4	0	0	7/1	1	$85
Camden-Clark Memorial Hospital.....	Parkersburg, W. Va.. R. H. Boice.....	3,342	.....	126	30	3	0	0	7/1	1	$100
Mercy Hospital	Janesville, Wis..... O. Overton.....	2,455	.....	145	33	1	0	0	7/1	1	$75
LaCrosse Lutheran Hospital.....	LaCrosse, Wis..... A. Gundersen.....	2,547	1,887	111	41	1	0	0	7/1	1	$100

10. NEUROLOGY

Revision of list is now taking place in collaboration with the American Board of Psychiatry and Neurology

Los Angeles County Hospital *[1]	Los Angeles..... S. D. Ingham.....	1,351	3,800	457	214	1	0	0	7/1	2	$10
Gallinger Municipal Hospital *.....	Washington, D. C.... J. W. Watts.....	321	.....	33	29	1	0	0	7/1	1	....
George Washington University Hospital *..	Washington, D. C....	187	.....	4	1	0	0	2	7/1	1	$83.33
University of Chicago Clinics [5]	Chicago, Ill..... R. B. Rickter.....	457	3,292	2	1	0	1	0	7/1	3	$75
University Hospitals [1]	Iowa City, Ia..... C. Van Epps.....	910	1,064	25	15	1	1	0	7/1	1	$20.83
Baltimore City Hospitals *.....	Baltimore..... Frank R. Ford.....	459	150	100	55	1	0	0	7/1	1	$150
Boston City Hospital *.....	Boston..... D. E. Denny-Brown....	476	.....	17	10	1	1	0	Varies	1+	$83.33
Massachusetts General Hospital *.....	Boston..... J. B. Ayer.....	332	15,187	25	17	1	0	0	.....	...	....
University Hospital [1]	Ann Arbor..... C. Camp.....	682	5,684	19	10	0	1	0	7/1	1-4	$25
Henry Ford Hospital *.....	Detroit..... T. J. Heldt.....	(See psychiatry)									
Eloise Hospital and Infirmary [1]	Eloise, Mich..... R. Costello.....	604	2,290	33	15	1	1	0	7/1	1	$94.58
Mayo Foundation	Rochester, Minn..... H. W. Woltman.....	(See page 1344)									
Homer G. Phillips Hospital *.....	St. Louis..... David McK. Rioch.....	260	420	82	29	1	1	0	7/1	1-2	$100
Brooklyn Hospital [4] [6]	Brooklyn..... H. M. Merwarth.....	357	1,859	.....	..	1	0	0	7/1	1	$50
Kings County Hospital *.....	Brooklyn..... J. Smith.....	3,707	3,742	.....	..	2	2	0	7/1	2	$18
Bellevue Hospital [1]	New York City..... F. Kennedy.....	257	181	.....	..	1	0	0	1/1, 7/1	1	$83
Lenox Hill Hospital [1]	New York City..... T. K. Davis.....	302	1,618	.....	..	1	0	0	1/1	1	$25
Metropolitan Hospital [1]	New York City..... S. P. Jewett.....	230	1,768	21	6	1	0	0	7/1	1-2	$75
Montefiore Hospital [1]	New York City..... S. P. Goodhart.....	251	804	28	21	1	4	2	1/1, 7/1	1-1½	....
Morrisania City Hospital *.....	New York City..... N. Savitsky.....	.....	2,611	.....	..	1	0	0	1/1	1	$18
Mount Sinai Hospital [1]	New York City.....	.....	.....	.....	..	1	2	0	1/1, 7/1, 9/1	1½	$50
Neurological Institute of New York [1]	New York City..... T. J. Putnam.....	3,332	20,019	104	54	1	13	0	Quart.	1-2	$40
New York City Hospital *.....	New York City..... H. V. Wildman.....	560	2,084	108	49	1	0	0	7/1	1	$50
Welfare Hospital for Chronic Diseases *[1]	New York City.....	779	394	76	31	4	5	0	7/1	1+	$50
Duke Hospital *[1]	Durham, N. C..... R. W. Graves.....	283	1,586	12	6	1	0	0	7/1	1	$41
Cincinnati General Hospital *[7]	Cincinnati..... H. D. McIntyre and C. D. Aring.....	357	1,800	.....	..	1	0	1	7/1	1	[a]
Jefferson Medical College Hospital *.....	Philadelphia..... B. J. Alpers.....	422	4,047	27	11	1	0	0	9/1	1	None
Temple University Hospital [8]	Philadelphia..... T. S. Fay.....	466	3,570	58	29	2	0	0	7/1	3	$40

11. NEUROSURGERY

Los Angeles County Hospital *[1]	Los Angeles..... C. Rand.....	2,112	708	251	28	2	0	0	.....	...	....
University of California Hospital *[1]	San Francisco..... H. C. Naffziger.....	410	.....	17	13	2	0	0	7/1	1+	$25
Passavant Hospital *[1]	Chicago..... Loyal Davis	222	3,986	.....	14	0	0	1	.....	5+	$100
Presbyterian Hospital *	Chicago..... A. Verbrugghen.....	125	[a]	13	5	1	0	1	1/1	1-2	....
Illinois Neuropsychiatric Institute.....	Chicago..... E. Oldberg.....	390	.....	32	29	5	0	0	7/1	3	$50
St. Luke's Hospital *.....	Chicago..... E. Oldberg.....	227	.....	17	15	1	0	0	7/1	1-3	$25
Johns Hopkins Hospital *.....	Baltimore..... W. E. Dandy.....	666	.....	51	25	1	0	0	7/1, 9/1	1-2	....
Boston City Hospital *.....	Boston..... D. Munroe.....	448	.....	61	46	1	1	0	Varies	1+	$83.33
Lahey Clinic [7]	Boston..... G. Horrax.....	600	.....	.....	..	0	0	4	1/1, 7/1, 9/1	1-2	$100[c]
Massachusetts General Hospital *.....	Boston..... J. C. White.....	217	... ..	40	18	1	2	0	.....	...	....
Henry Ford Hospital *.....	Detroit..... A. C. Crawford.....	305	923	29	14	1	0	0	7/1	2-3	$130
University Hospitals *	Minneapolis..... William T. Peyton.....	311	545	24	18	0	0	1	7/1	1-3	$50
Mayo Foundation	Rochester, Minn.....	(See page 1344)									
Barnes Hospital *	St. Louis.....	317	.....	34	22	0	0	1	1/1, 7/1	1-3	$75
Albany Hospital [1]	Albany, N. Y..... E. H. Campbell.....	400	.....	36	32	1	1	0	7/1	2+	$25
Jewish Hospital [1]	Brooklyn..... L. M. Davidoff.....	383	545	44	24	1	1	1	1/1	2	$25
Kings County Hospital *.....	Brooklyn..... E. J. Browder.....	3,054[b]	1,586	.....	..	1	1	0	1/1, 7/1	1-2	$18
Edward J. Meyer Memorial Hospital *.....	Buffalo..... W. B. Hamby.....	54	112	6	3	1	0	0	7/1	3	$50[c]
Neurological Institute of New York.....	New York City..... T. J. Putnam.....	3,332	20,019	104	54	1	3	0	7/1, 10/1	1-2	$40
Strong Memorial and Rochester Municipal Hospitals *	Rochester, N. Y..... W. P. Van Wagenen..	426	503	.....	..	1	0	0	7/1	1-2	$66.60
Cleveland Clinic Foundation Hospital *....	Cleveland..... W. J. Gardner.....	730	.....	47	29	0	0	2	7/1	1-3	$65
Hospital of the University of Pennsylvania*	Philadelphia..... F. C. Grant.....	497	162	47	36	1	0	2	7/1	3	None
Temple University Hospital *.....	Philadelphia..... T. S. Fay.....	(See Neurology)									
Medical College of Virginia, Hospital Division [1]	Richmond..... C. C. Coleman.....	1,012	.....	82	25	1	1	0	7/1	1	....

Numerical and other references will be found on page 1344.

12. OBSTETRICS AND GYNECOLOGY

The following services are approved by the Council and the American Board of Obstetrics and Gynecology

	Chief of Service	Residencies Approved	Inpatients: Treated OB	Inpatients: Treated Gyn	Outpatient: Visits OB	Outpatient: Visits Gyn	Residents Assistant Residents	Fellows	Service Begins	Length of Service (Years)	Beginning Stipend
Hillman Hospital *	Birmingham, Ala... J. R. Garber and S. G. Stubbins	OBG	2,294	911	6,460	13,799	1 0 0		7/1	1-3	$50
Employees' Hospital of the Tennessee Coal, Iron and Railroad Company *	Fairfield, Ala. J. H. Williams	OB	1,581	.....	8,752	.....	1 0 0		7/1	1	$150
Los Angeles County Hospital *[1]	Los Angeles. E. M. Lazard	OBG	6,144	1,866	3,181	10,351	5 0 0		1/1, 7/1	3	$10
White Memorial Hospital *[1]	Los Angeles. R. J. Thompson	OB	1,391	762	4,069	7,033	3 0 0		7/1	1-3	$80
Highland-Alameda County Hospital *[1]	Oakland, Calif. C. W. Page and C. A. DePuy	OBG	1,234	658	5,563	3,309	1 2 0		7/1	1-3	$40
Children's Hospital *[1]	San Francisco. H. A. Stephenson	OB	1,457	.....	2,691	.....	.. 1 ..		7/1	1	$25
		Gyn	.....	522	.....	1,147	0 1 0		7/1	1	$25
San Francisco Hospital *[1]	San Francisco. W. G. Moore and A. V. Pettit	OBG	814	958	5,683	.....	2 2 0		7/1	1-2	$50
Stanford University Hospitals *[1]	San Francisco. L. A. Emge	OBG	742	754	4,044	13,930	1 2 0		7/1	1+	$25
University of California Hospital *[1]	San Francisco. F. W. Lynch	OBG	771	798	4,811	9,252	1 4 0		7/1	1+	.....
Santa Clara County Hospital *	San Jose, Calif. A. Shufelt	OBG	930	518	3,707	5,765	1 .. 0		7/1	1	$125
New Haven Hospital *[1]	New Haven, Conn... A. H. Morse	OBG	1,334	809	4,501	2,866	1 2 0		7/1	1-3	*
Columbia Hospital for Women and Lying-In Asylum [1]	Washington, D. C.	OBG	2,937	1,355	8,078	3,515	4 3 0		1/1, 7/1	1+	None
Freedmen's Hospital *	Washington, D. C... J. W. Ross	OBG	1,568	676	6,521	4,704	1 2 0		7/1	1-3	$20
Gallinger Municipal Hospital *[1]	Washington, D. C... H. F. Kane	OBG	3,517	585	2,811	2,902	2 2 0		7/1	1	.....
Garfield Memorial Hospital *	Washington, D. C... A. Y. P. Garnett	OB	2,495	.....	3,925	.....	1 1 0		7/1	1-2	$50
Grady Hospital *	Atlanta, Ga.	OBG	4,903	1,160	28,723	24,427	2 6 0		7/1	1+	$40
University Hospital *[1]	Augusta, Ga. R. Torpin	OBG	1,537	683	3,831	1,479	1 2 0		7/1	1-3	$35
Chicago Lying-In Hospital and Dispensary	Chicago.		(See University of Chicago Clinics)								
Chicago Maternity Center [1]	Chicago. B. E. Tucker	OB	3,990[1]	.....	18,479	.....	1 10[a] 0		1/1	1	.....
Cook County Hospital *[1]	Chicago. D. Hillis	OB	3,731	.....	17,680	.....	7 0 2		1/1	2	$25
Henrotin Hospital *[1]	Chicago. E. L. Cornell	OB	437	.....	.....	.....	1 0 0		7/1	1	$25
Mercy Hospital-Loyola University Clinics *.	Chicago. H. E. Schmitz	OBG	848	738	1,327	5,353	2 0 0		7/1	1-2	$50
Michael Reese Hospital *[1]	Chicago. I. F. Stein	OBG	1,815	1,101	2,003	3,632	2 3 0		1/1, 7/1	1-2	$50
Mount Sinai Hospital *[1]	Chicago.	OBG	1,244	576	1,635	2,785	1 0 0		6/15	1	$30
Passavant Memorial Hospital *[1]	Chicago. A. H. Curtis	Gyn	.....	687	.....	4,381	1 0 0		.....	1	None
Presbyterian Hospital *	Chicago. N. S. Heaney	OBG	1,144	1,454	2,176[a]	5,885[a]	3 0 0		Varies	2½	$50
Research and Educational Hospital *[1]	Chicago. F. Falls	OB	779	.....	.....	.....	3 0 0		7/1	1-3	$50
St. Joseph Hospital *	Chicago. C. Geiger	OB	1,201	.....	2,773	.....	1 0 0		.....	1	$50
St. Luke's Hospital *	Chicago. H. O. Jones	OBG	3,579	747	3,348	5,121	2 1 0		7/1	1-3	$25
University of Chicago Clinics *[1]	Chicago. F. L. Adair	OBG	3,621	731	25,817	13,584	3 5 0		1/1, 7/1	3	.....
Women and Children's Hospital *[1]	Chicago. B. Tucker	OBG	667	512	2,205	2,364	1 0 0		7/1	1	$50
Little Company of Mary Hospital *[1]	Evergreen Park, Ill. P. E. Lawler	OB	1,830	.....	.....	.....	1 0 0		7/1	1	$50
St. Francis Hospital *	Peoria, Ill. W. A. Malcolm	OB	1,743	441	.....	.....	1 0 0		7/1	2	$75
Indiana University Medical Center *[1]	Indianapolis. H. F. Beckman	OB	1,450	.....	5,103	.....	1 1 0		7/1	1-2	$66.33
Methodist Hospital *	Indianapolis. G. W. Gustafson	OB	2,411	.....	.....	.....	1 0 0		7/1	1-2	$35
University Hospitals *[1]	Iowa City, Iowa. E. D. Plass	OBG	2,247	1,042	522	2,370	1 4 0		7/1	1-3	$20.83
University of Kansas Hospitals *[1]	Kansas City, Kan. L. A. Calkins	OBG	533	622	4,281	3,596	1 3 0		7/1	1-4	$50
Louisville General Hospital *	Louisville, Ky. C. W. Hibbitt	OBG	1,764	796	8,610	8,533	2 4 0		7/1	1-4	$13.91
Charity Hospital *[1]	New Orleans.	OBG	8,300	6,251	37,237	30,741	6 12 0		7/1	1-3	$25
Touro Infirmary *	New Orleans. A. F. Hebert	OB	1,415	.....	10,789	.....	2 0 0		7/1	1-2	$25
	H. Miller	Gyn	.....	1,171	.....	4,431	1 1 0		7/1	1-2	$25
Baltimore City Hospital *	Baltimore. L. H. Douglass	OB	2,277	.....	.....	.....	1 2 0		7/1	1+	$12
Johns Hopkins Hospital *[1]	Baltimore. N. J. Eastman	OB	2,309	604	14,105	.....	1 4 0		7/1, 9/1	1-6	....
	R. W. TeLinde	Gyn	.....	2,076	.....	13,836	1 4 0		7/1, 9/1	1-6	....
Maryland General Hospital *	Baltimore. E. H. Kloman	OBG	644	423	851	314	1 1 0		7/1	1-2	$25
Mercy Hospital *	Baltimore. E. P. Smith and A. Samuel	OBG	965	671	2,360	1,105	1 2 0		9/1	3	$25
St. Joseph's Hospital *	Baltimore. T. K. Galvin	OBG	1,356	351	2,973	1,026	1 2 0		7/1	2-3	$10
Sinai Hospital *	Baltimore. M. W. Aaronson	OB	997	.....	3,431	.....	1 1 0		7/1	1	$50
University Hospital *[1]	Baltimore. L. H. Douglass	OB	1,626	.....	13,422	.....	1 3 0		7/1	1-3	$25
	J. H. Hundley	Gyn	.....	885	.....	7,787	1 2 0		7/1	1-3	$25
Boston City Hospital *	Boston. R. M. Green	OBG	3,009	2,507	10,736	8,158	1 0 0		Varies	1	.....
Boston Lying-In Hospital	Boston. F. C. Irving	OB	3,835	.....	34,431	.....	1 2 0		1/1, 7/1	1¼	$50
Carney Hospital *	Boston. L. E. Phaneuf	OBG	804	389	3,352	3,550	1 0 0		1/1, 5/1, 9/1	1+	None
Free Hospital for Women	Brookline, Mass. F. A. Pemberton	Gyn	.....	2,656	.....	18,601	1 3 0		Varies	1	None
University Hospital *[1]	Ann Arbor, Mich. N. F. Miller	OBG	1,417	939	5,166	6,405	2 1 0		7/1	1-4	$25
City of Detroit Receiving Hospital *	Detroit. W. F. Seeley	OBG	m	847	m	4,007	1 1 0		7/15	1-4	....
Florence Crittenton Hospital	Detroit. H. A. Pearse	OBG	2,441	736	2,965	456	1 2 0		7/1	3	$75
Grace Hospital *	Detroit. M. A. Darling	OBG	3,066	1,553	152	2,725	1 2 0		7/1, 9/1	1-3	$100
Harper Hospital *	Detroit. G. Kamperman	OBG	1,705	496	.....	.....	1 2 0		7/1	1-3	$25
Henry Ford Hospital *[1]	Detroit. C. J. Dalton	OBG	1,143	866	6,026	17,290	1 2 0		7/1	4	$130
Herman Kiefer Hospital [1]	Detroit. W. F. Seeley	OBG	2,085	n	.....	n	2 0 0		7/1	1-4	$175
Providence Hospital *	Detroit. R. W. Alles	OB	2,901	.....	.....	.....	1 1 0		7/1	1	$125
St. Mary's Hospital *	Detroit. V. J. Turcotte	OBG	1,640	864	684	1,398	1 1 0		7/1	3-4	$125
Minneapolis General Hospital *[1]	Minneapolis. J. H. Simons	OBG	1,931	609	4,828	4,345	0 2 0		1/1, 7/1	3	$25
University Hospitals *	Minneapolis. C. McKeithan	OBG	534	628	2,703	4,231	0 0 4		7/1	1-3	$50
Mayo Foundation	Rochester, Minn. R. D. Mussey	OBG	(See page 1344)								
Ancker Hospital *	St. Paul. A. G. Schulze	OBG	1,212	391	3,559	5,301	1 0 0		7/1	3	$50
Homer G. Phillips Hospital *[1]	St. Louis. T. K. Brown	OBG	1,641	980	1,203	2,925	3 2 0		7/1	1-3	$75
Jewish Hospital *[1]	St. Louis. S. A. Weintraub	OBG	800	794	1,026	1,277	1 0 0		7/1	1+	$65
St. Louis City Hospital *[1]	St. Louis. G. Jones	OBG	1,900	1,491	3,650	7,948	1 4 0		7/1	1-3	$50
St. Louis Maternity Hospital [1]	St. Louis. W. M. Allen	OBG	2,366	o	.....	o	1 1 p		7/1	1-3	$25
St. Luke's Hospital *	St. Louis. C. D. O'Keefe	OBG	664	489	.....	.....	1 0 0		7/1	1	....
Creighton Memorial St. Joseph's Hospital *	Omaha. M. E. Grier	OBG	1,271	604	2,020	2,268	1 0 0		7/1	1-2	$50
University of Nebraska Hospital *	Omaha. E. Sage	OBG	564	303	2,582	982	1 0 0		7/1	1	$50
Cooper Hospital *	Camden, N. J. A. B. Davis and G. B. German	OB	1,811	.....	8,011	.....	1 0 0		7/1	3	$83.33
Jersey City Hospital *[1]	Jersey City, N. J. F. C. Holden	Gyn	.....	611	.....	6,000	1 0 0		1/1, 7/1	1	$75
Margaret Hague Maternity Hospital [1]	Jersey City, N. J. S. A. Cosgrove	OB	6,974	.....	32,916	.....	7 0 0		Quart.	1¾	$100
Albany Hospital *[1]	Albany, N. Y. A. J. Wallingford	Gyn	.....	2,359	.....	.....	1 1 0		7/1	2	$25
Anthony N. Brady Maternity Home [1]	Albany, N. Y. G. E. Lochner	OB	1,521	.....	2,673	.....	1 0 0		10/1	1-3	$75
Cumberland Hospital *	Brooklyn. S. Lubin	OB	1,304	.....	7,839	.....	1 1 0		1/1, 7/1	1	$18
Greenpoint Hospital *[1]	Brooklyn. T. S. Welton	OBG	1,276	604	7,268	4,625	2 0 0		9/1	1+	$18
Jewish Hospital *[1]	Brooklyn.	OBG	3,705	1,192	3,285	3,290	2 5 0		1/1, 7/1	3	$25
Kings County Hospital *	Brooklyn. R. Garlick and C. Gordon	OBG	3,903	3,796	15,356	10,778	4 0 0		7/1	1-2	$18
Long Island College Hospital *	Brooklyn. A. C. Beck	OBG	1,712	827	9,647	3,440	1 2 0		.....	3	$22.50
Methodist Hospital *	Brooklyn. R. M. Beach	OB	2,118	.....	9,251	.....	1 1 0		1/1, 7/1	1	....
Norwegian Lutheran Deaconesses' Home and Hospital *[1]	Brooklyn. B. Harris and J. B. Dowd	OB	882	.....	880		1 1 0		7/1	1	$25
St. Mary's Hospital *[1]	Brooklyn. E. A. Keyes	OBG	1,447	411	.....	.....	1 1 0		7/1	1-2	$40
Buffalo General Hospital *[1]	Buffalo. F. C. Goldsborough	OBG	851	1,468	.....	.....	1 2 0		7/1	1+	$25

Numerical and other references will be found on page 1344.

12. OBSTETRICS AND GYNECOLOGY—(Continued)

The following services are approved by the Council and the American Board of Obstetrics and Gynecology

		Chief of Service	Residencies Approved	Inpatients Treated OB	Inpatients Treated Gyn	Outpatients Visits OB	Outpatients Visits Gyn	Residents	Assistant Residents	Fellows	Service Begins	Length of Service (Years)	Beginning Stipend
Edward J. Meyer Memorial Hospital *	Buffalo	F. C. Goldsborough	OBG	720	565	3,384	2,835	1	3	0	7/1	3	$50
Millard Fillmore Hospital *	Buffalo	M. G. Potter	OB	2,365	....	417	.....	1	0	0	7/1	1	$25
Bellevue Hospital *[1]	New York City	W. E. Studdiford	OBG	1,819	2,563	.....	747	3	0	0	1/1, 7/1	3	$75
Flower and Fifth Avenue Hospitals *	New York City	L. S. Loizeaux	OBG	1,582	982	3,617	2,148	1	1	0	7/1	1	....
Fordham Hospital *	New York City	A. C. Butts	OB	1,334	....	7,470	.....	1	1	0	1/1	1	$18
French Hospital *	New York City	F. C. Holden	OB	1,671	....	6,652	.....	1	1	0	1/1	1	....
Harlem Hospital *[1]	New York City	F. A. Kassebohm	OB	3,109	....	19,830	.....	1	0	0	7/1	1	$18
		H. C. Falk	Gyn	.....	1,406	.....	18,724	1	1	0	1/1, 7/1	1	$18
Lenox Hill Hospital *[1]	New York City	R. C. Van Etten and R. L. McCready	OB	1,392	....	5,882	.....	1	0	0	7/1	1-2	$50
Lincoln Hospital *[1]	New York City	E. J. Davin	OBG	1,878	896	12,347	8,187	2	2	0	1/1, 7/1	1-2	$18
Lying-in Hospital	New York City	H. Stander	OBG	3,433	1,588	24,431	16,556	2	11	0	7/1	1-6	$12.50
Metropolitan Hospital *[1]	New York City	H. B. Safford	OBG	1,130	1,051	5,725	4,435	2	0	0	7/1	1-2	$18
Morrisania City Hospital *	New York City	H. Aranow	OB	1,236	....	4,538	.....	1	1	..	1/1, 7/1	1	$18
Mount Sinai Hospital *[1]	New York City	....	Gyn	.....	884	.....	21,783	1	1	1	1/1, 7/1	1	$50
New York City Hospital *	New York City	K. Johnson and J. V. Ricci	OBG	847	965	5,482	4,181	1	0	0	7/1	1	$50
New York Infirmary for Women and Children *[1]	New York City	W. Ragland	OB	1,072	.....	6,625	.....	1	0	0	9/1	1	$45
New York Post-Graduate Medical School and Hospital *[1]	New York City	W. T. Dannreuther	Gyn	.....	585	29,421	.....	1	0	0	10/1	1	$30
Sloane Hospital for Women *[1]	New York City	B. P. Watson	OBG	3,400	1,452	.....	.....	1	11	0	1/1, 7/1	1-2½	None
Woman's Hospital [1]	New York City	A. H. Aldridge	OBG	2,085	1,963	7,121	18,204	11	0	0	Quart.	1-3	$10
Strong Memorial and Rochester Municipal Hospitals *	Rochester, N. Y.	K. M. Wilson	OBG	1,279	1,211	4,591	6,570	1	3	0	7/1	1-4	$41.66
Syracuse Memorial Hospital *[1]	Syracuse	H. V. Schoeneck	OB	1,660	.....	2,635	.....	2	1	0	7/1	1+	$50
		N. P. Sears	Gyn	.....	760	.....	1,537	1	..	..	7/1	1+	$50
Duke Hospital *[1]	Durham, N. C.	B. Carter	OBG	1,200	888	5,307	10,327	2	8	0	7/1	1-4	$41
City Hospital *	Akron, Ohio	....	OB	2,307	....	2,219	.....	1	0	0	7/1	1-2	$60
Mercy Hospital *	Canton, Ohio	L. E. Leavenworth	OBG	1,804	377	.....	.....	1	1	0	7/1	1-2	$50
Cincinnati General Hospital *[1]	Cincinnati	H. L. Woodward	OB	3,001	.....	3,588	.....	1	2	0	7/1	2	*
City Hospital *[1]	Cleveland	W. Bill	OB	1,339	397	2,549	3,920	1	2	0	7/1	1-3	$40
Fairview Park Hospital *	Cleveland	E. D. Saunders	OB	1,178	.....	309	.....	0	1	0	7/1	1	$50
Mount Sinai Hospital *[1]	Cleveland	M. Garber and J. L. Bubis	OB	1,236	.....	794	.....	1	0	0	7/1	1	$60
St. Luke's Hospital *	Cleveland	C. T. Hemmings	OBG	1,797	520	1,893	1,861	2	1	0	6/25	1-3	$50
University Hospitals *[1]	Cleveland	A. H. Bill	OB	3,109	....	19,638	.....	1	4	0	7/1	2	$25
		W. H. Weir	Gyn	.....	1,406	.....	8,230	1	3	0	7/1	2	$25
Huron Road Hospital *	East Cleveland	S. C. Runnels and G. J. Salisbury	OBG	1,917	1,081	106	630	3	0	0	7/1	1-3	....
Lucas County General Hospital *	Toledo	E. C. Mohr	OBG	548	371	1,001	830	1	0	0	7/1	1+	$50
University Hospitals *	Oklahoma City	G. Penick and W. W. Wells	OBG	618	495	6,168	4,297	1	1	0	7/1	1	$50
University of Oregon Medical School Hospitals and Clinics *[1]	Portland, Ore.	R. E. Watkins	OBG	1,320	901	6,374	5,974	1	3	0	7/1	3	$30
George F. Geisinger Memorial Hospital *[1]	Danville, Pa.	R. E. Nicodemus	OB	708	....	3,564	.....	1	0	0	9/1	1	$50
Graduate Hospital of the University of Pennsylvania *	Philadelphia	W. R. Nicholson	Gyn	.....	477	.....	2,860	1	0	0	7/1	1	None
Hahnemann Hospital *	Philadelphia	W. C. Mercer and E. B. Craig	OBG	279	438	5,609	2,647	2	0	0	9/1	2	$50
Hospital of the University of Pennsylvania *	Philadelphia	C. Bachman	OBG	1,446	1,254	10,219	4,358	3	0	0	9/1	3	None
Hospital of the Woman's Medical College of Pennsylvania *[1]	Philadelphia	C. Macfarlane	Gyn	.....	478	.....	2,402	1	0	0	7/1, 9/1	2	$50
Kensington Hospital for Women	Philadelphia	E. A. Schumann	OBG	1,082	562	1,060	1,321	2	1	0	7/1	1-3	$25
Pennsylvania Hospital *	Philadelphia	....	OBG	1,423	1,107	12,702	4,717	3	0	0	1/1, 9/1	1-2	$20
Philadelphia General Hospital *[1]	Philadelphia	....	OBG	1,853	1,617	.....	.....	2	0	0	8/1	1-2	$50
Temple University Hospital *[1]	Philadelphia	T. L. Montgomery	OBG	1,382	541	4,500	3,477	1	0	0	7/1	3	$40
Woman's Hospital *[1]	Philadelphia	A. Peltz	OB	1,124	.....	3,058	.....	1	0	0	4/1	1	$25
		M. C. Sturgis	Gyn	.....	472	.....	1,872	1	0	0	9/1	1	$25
Elizabeth Steel Magee Hospital [1]	Pittsburgh	C. E. Ziegler and B. Z. Cashman	OBG	3,790	1,700	7,546	2,815	2	5	0	9/1	1-5	$33.33
St. Francis Hospital *	Pittsburgh	J. J. Carroll	OB	1,600	.....	1,275	.....	1	0	0	9/1	1-3	$65
		B. Z. Cashman and W. A. Nealon	Gyn	.....	968	.....	1,086	1	0	0	9/1	1-3	$65
Roper Hospital *	Charleston, S. C.	L. A. Wilson	OBG	1,333	386	12,134	3,415	1	1	1	7/1	1-4	$10
John Gaston Hospital *	Memphis, Tenn.	W. T. Pride	OB	3,526	....	11,224	.....	1	2	0	7/1	1	$32.50
George W. Hubbard Hospital of Meharry Medical College *	Nashville, Tenn.	W. L. Williamson	Gyn	.....	800	.....	11,422	1	1	0	7/1	1	$32.50
		R. W. Duke and C. S. McMurrey	OB	381	316	1,923	793	1	0	0	7/1	1-2	$75
Nashville General Hospital *	Nashville, Tenn.	M. S. Lewis and H. M. Tigert	OBG	1,246	543	10,033	8,624	1	2	0	7/1	1-2	$35
Vanderbilt University Hospital *[1]	Nashville, Tenn.	L. E. Burch	OBG	931	550	4,795	6,306	1	4	0	7/1	1+	$35
Baylor University Hospital *	Dallas, Tex.	W. E. Massey and E. Dunlap	OB	1,896	797	6,117	1,758	1	2	0	7/1	1-3	$37.50
Parkland Hospital *[1]	Dallas, Tex.	W. T. Robinson	OB	2,188	....	8,400	.....	1	1	0	1/1, 7/1	1-2	$25
John Sealy Hospital *[1]	Galveston, Tex.	W. R. Cooke	OBG	938	659	10,376		1	0	0	7/1	1-3	$25
Hermann Hospital *	Houston, Tex.	F. W. Bertner and R. Johnston	OBG	718	644	3,472	4,425	1	0	0	.....	1-2	$50
St. Joseph's Infirmary [1]	Houston, Tex.	H. Johnson	OB	4,254	....	541	.....	2	0	0	7/1	1-2	$85
University of Virginia Hospital *	Charlottesville, Va.	T. J. Williams	OBG	954	562	6,164		1	2	0	7/1	1+	$50
Medical College of Virginia, Hospital Div.*[1]	Richmond	H. H. Ware	OB	1,807	....	.....	.....	1	1	0	7/1	1	....
State of Wisconsin General Hospital *[1]	Madison	J. W. Harris	OBG	1,003		4,950		1	2	0	7/1	3?	$25
Milwaukee County Hospital *[1]	Wauwatosa, Wis.	A. H. Lahmann	OBG	911	734	4,112	5,343	3	2	0	7/1, 7/15	1	$50

The following services, approved by the Council, are now being reviewed in collaboration with the American Board of Obstetrics and Gynecology

Grace Hospital *	New Haven, Conn.	H. P. Perrins	OBG	1,285	628	836	314	1	0	0	7/1	3	$90
Sibley Memorial Hospital *	Washington, D. C.	J. Kotz	OB	2,185	....	.....	.....	1	0	0	7/1	1-2	$65
Grant Hospital *	Chicago	....	OB	2,050		3,926		1	0	0	7/1	1-3	$50
Provident Hospital *[1]	Chicago	F. M. Santos and W. W. Gibbs	OB	833	323	3,274	7,122	1	0	0	7/1	1-3	$50
St. Vincent's Infant and Maternity Hosp.	Chicago	H. E. Schmitz	OB	382	....	1,778	.....	1	0	0	7/1	1	$50
Indianapolis City Hospital *	Indianapolis	H. F. Beckman and J. W. Hoffmann	OBG	1,107	900	8,121	9,269	2	0	0	7/1	1-2	$41.64
Franklin Square Hospital *[1]	Baltimore	I. A. Siegel	OB	1,053	....	.....	.....	1	0	0	7/1	1	....
Provident Hospital and Free Dispensary *	Baltimore	L. H. Douglas	OB	427	....	1,345	.....	1	0	0	.....	1	$25
Union Memorial Hospital *	Baltimore	J. M. Bergland	OB	649	....	.....	.....	1	1	0	7/1	1-2	$12.50

Numerical and other references will be found on page 1344.

12. OBSTETRICS AND GYNECOLOGY—(Continued)

The following services, approved by the Council, are now being reviewed in collaboration with the American Board of Obstetrics and Gynecology

		Chief of Service	Residencies Approved	Inpatients Treated OB	Inpatients Treated Gyn	Outpatients Visits OB	Outpatients Visits Gyn	Residents Assistant Residents	Fellows	Service Begins	Length of Service (Years)	Beginning Stipend
Massachusetts Memorial Hospitals *[1]	Boston	C. W. Sewall	OB	971	.....	6,574	.....	1	1	0	7/1	1-2	$50
Woman's Hospital [1]	Detroit	L. E. Daniels and H. M. Nelson	OBG	3,252	1,419	947	750	2	0	2	7/1	1-3	$50
Kansas City General Hospital *	Kansas City, Mo.	R. R. Wilson	OBG	1,125	662	3,966	4,308	3	0	0	7/1	3	$50
St. Mary's Group of Hospitals *	St. Louis	W. H. Vogt Sr.	OBG	1,934	1,032	6,000	5,118	1	2	0	7/1	3	$25
New York Polyclinic Medical School and Hospital *	New York City	D. N. Barrows	OB	1,045	.....	3,206	.....	1	0	0	7/1	2	$128.25
			Gyn	.....	877	.....	3,926	1	0	0	7/1	2	....
Queens General Hospital *[1]	Jamaica, N. Y.	E. A. Flemming	OBG	2,064	884	9,136	4,602	1	1	0	7/1	1	$18
Watts Hospital *	Durham, N. C.	R. A. Ross	OB	739	.....	864	.....	1	0	0	7/1	1	$50
St. John's Hospital *	Cleveland	C. A. O'Connel	OB	1,493	256	.....	.....	1	0	0	7/1	1-2	$50
Starling-Loving University Hospital *	Columbus, Ohio	P. J. Reel	Gyn	.....	456	.....	3,385	1	1	0	7/1	1	$25
Miami Valley Hospital *	Dayton, Ohio	F. C. Rounds	OB	429	.....	.....	.....	1	0	0	7/1	1	$75
St. Vincent's Hospital *	Toledo, Ohio	R. C. King	OB	947	.....	541	.....	1	0	0	7/1	1	$100
Baroness Erlanger Hospital *	Chattanooga, Tenn.	H. P. Hewitt	OB	1,334	.....	.....	.....	1	0	0	7/1	1-3	$40

13. OPHTHALMOLOGY AND OTOLARYNGOLOGY

		Chief of Service	Residency Approved	Inpatients Treated Oph	Inpatients Treated Otol	Outpatients Treated Oph	Outpatients Treated Otol	Residents Assistant Residents	Fellows	Service Begins	Length of Service (Years)	Beginning Stipend
Children's Hospital [1]	Los Angeles	J. M. Brown	Otol	.....	1,439	.....	3,638	1	0	0	7/1	1	$30
Los Angeles County Hospital *[1]	Los Angeles	W. Boyce and R. Irvine	Oph	798	.....	16,242	.....	2	0	0	1/1	2	$10
		P. Viole	Otol	.....	2,550	.....	16,452	3	0	0	4/1, 7/1	3	$10
White Memorial Hospital *	Los Angeles	W. A. Boyce	Oph	221	.....	11,283	.....	1	0	0	7/1	1-3	$80
		B. C. Colver	Otol	.....	1,294	.....	10,211	2	0	0	7/1	1-3	$80
San Diego County General Hospital *	San Diego, Calif.	F. M. Bond and C. W. Brown	OpOt	687		7,003		1	0	0	7/1	1	$115
Children's Hospital *[1]	San Francisco	R. C. Martin	OpOt	1,084		1,324	2,804	1	0	0	7/1	1	$25
Greens' Eye Hospital	San Francisco	M. I. Green	Oph	989	.....	21,973	.....	0	2	0	7/1	2	$50
San Francisco Hospital *[1]	San Francisco		Oph	435	.....	.....	.....	0	1	0	7/1	1	....
			Otol	.....	252	.....	.....	0	2	0	7/1	1	....
Stanford University Hospitals *[1]	San Francisco	H. Barkan	Oph	514	.....	10,528	.....	1	2	0	7/1	1	$25
		J. A. Bacher	Otol	.....	996	.....	11,283	1	1	0	7/1	1	$25
University of California Hospital *[1]	San Francisco	F. C. Cordes	Oph	237	.....	15,867	.....	0	2	0	7/1	1	$25
		W. B. Smith	Otol	.....	587	.....	7,416	0	1	0	7/1	1	$25
Colorado General Hospital *	Denver	W. M. Hane	Oph	384	.....	11,723	.....	2	0	0	8/1	2	$40
New Haven Hospital *[1]	New Haven, Conn.	N. Canfield	Otol	.....	889	.....	5,118	1	1	0	7/1	...	*
Episcopal Eye, Ear and Throat Hospital	Washington, D. C.		Oph	1,341	.....	26,847	.....	4	0	0	3/1, 7/1	1¼	$22.50
			Otol	.....	4,832	.....	12,479	3	0	0	3/1, 7/1, 11/1	1	$22.50
Gallinger Municipal Hospital *	Washington, D. C.	D. Davis	Op't	80	893	2,630		1	1	0	7/1	1	....
Grady Hospital *	Atlanta, Ga.		OpOt	350	1,126	9,174	16,314	2	4	0	7/1	3	$30
Cook County Hospital *[1]	Chicago	W. F. Moncreiff	Oph	658	.....	23,338	.....	4	1	0	1/1, 7/1	1-2	$25
		J. Lifschutz	Otol	.....	5,794	.....	24,372	2	3	0	1/1, 7/1	1-1½	$25
Illinois Eye and Ear Infirmary [1]	Chicago		Oph	2,343	.....	204,225	.....	15	0	0	1/1, 7/1	1-2	None
			Otol	.....	2,830	.....	101,136	8	0	0	1/1, 7/1	1-2	None
Michael Reese Hospital *[1]	Chicago	S. J. Meyer	Oph	613	.....	7,804	.....	1	0	0	7/1	1-2	$50
		J. F. Strauss	Otol	.....	1,085	.....	3,837	1	0	0	7/1	1-2	$50
Passavant Memorial Hospital *[1]	Chicago	S. R. Gifford	Oph	460	.....	8,448	.....	1	0	0	7/1	1	None
		J. Delph	Otol	.....	275	.....	4,804	1	0	0	7/1	1	None
Presbyterian Hospital *	Chicago	E. V. L. Brown	Oph	170	.....	8,429*	.....	2	0	0	1/1, 7/1	...	$25
		D. B. Hayden	Otol	.....	1,543	.....	12,602*	2	0	0	1/1, 7/1	...	$50
Provident Hospital *[1]	Chicago	C. L. Forney	OpOt	57	458	8,568	3,500	1	0	0	7/1	1-3	$50
Research and Educational Hospitals *	Chicago	H. Beard	Oph	226	.....	.....	.....	2	0	0	7/1	1	$50
		T. Lederer	Otol	.....	621	.....	.....	1	0	0	7/1	1-2	$50
St. Luke's Hospital *	Chicago	F. E. Brawley and W. H. Theobald	OpOt	522	883	2,733	3,029	1	0	0	7/1	1-3	$25
University of Chicago Clinics *	Chicago	A. Krause	Oph	196	.....	9,431	.....	0	4	4	7/1	1-4	....
		J. R. Lindsay	Otol	.....	798	.....	12,518	2	0	1	7/1	1-2	....
Wesley Memorial Hospital *[1]	Chicago	W. A. Mann	Oph	.....	.....	.....	.....	1	0	0	Varies	2¼*	None
Indianapolis City Hospital *	Indianapolis	B. J. Larkin	Oph	165	.....	6,527	.....	1	1	0	7/1	1-2	$41.64
		R. Dearmin	Otol	.....	1,221	.....	6,855	1	0	0	7/1	1-2	$41.64
Indiana University Medical Center *[1]	Indianapolis	W. F. Hughes	Oph	371	.....	4,129	.....	1	0	0	7/1	1-3	$66.33
		C. H. McCaskey	Otol	.....	639	.....	2,494	2	0	0	7/1	1-2	$66.33
University Hospitals *[1]	Iowa City	C. S. O'Brien	Oph	1,219	.....	6,931	.....	1	2	0	1/1, 7/1	1	$20.83
		D. M. Lierle	Otol	.....	2,360	.....	5,929	1	2	0	7/1	1	$20.83
University of Kansas Hospitals *[1]	Kansas City, Kan.	S. E. Roberts	Otol	.....	772	.....	3,038	1	0	0	7/1	1	$50
Louisville General Hospital *	Louisville, Ky.	C. D. Townes and W. Dean	OpOt	234	827	6,329	4,763	1	0	0	7/1	1	$50
Charity Hospital *[1]	New Orleans, La.		OpOt	6,699		69,869		6	12	0	7/1	1-3	$25
Eye, Ear, Nose and Throat Hospital [1]	New Orleans, La.	W. R. Buffington	Oph	3,076	.....	16,296	.....	3	1	0	7/1	2	None
		F. E. LeJeune	Otol	.....	5,447	.....	27,450	6	6	0	7/1	2	None
Touro Infirmary *	New Orleans, La.	E. E. Allgeyer and A. Well	OpOt	1,360		5,257	8,268	2	0	0	.....	1	$25
Baltimore Eye, Ear and Throat Charity Hospital [1]	Baltimore		OpOt	657	2,281	13,034	8,053	1	1	0	7/1	1-2	None
Johns Hopkins Hospital *[1]	Baltimore	A. C. Woods	Oph	1,293	.....	20,786	.....	1	5	0	7/1, 9/1	1-4	....
		S. J. Crowe	Otol	.....	968	.....	13,061	1	1	0	7/1, 9/1	1-4	None
University Hospital *	Baltimore	C. A. Clapp and E. A. Looper	OpOt	54	894	5,832	2,662	0	1	0	7/1	1-2	....
Beth Israel Hospital *	Boston		Otol	.....	888	.....	5,391	1	0	0	7/1	1	None
Boston City Hospital *	Boston	J. J. Regan and L. M. Freedman	OpOt	601	3,984	26,181	24,461	..	..	..	Varies	1+	....
Lahey Clinic [7]	Boston	W. B. Hoover	Otol	.....	500	.....	10,000	0	0	1	7/1	1-2	$100*
Massachusetts Eye and Ear Infirmary	Boston	E. B. Dunphy	Oph	6,702		89,678		18	0	0	Quart.	2	None
		L. A. Schall	Otol					17	0	0	Quart.	1¾	None
Memorial Hospital *	Worcester, Mass.	O. Berry	Otol	.....	1,684	.....	2,199	1	0	0	7/1	1	$41.67
University Hospital *[1]	Ann Arbor, Mich.	F. B. Fralick	Oph	755	.....	13,256	.....	2	1	0	7/1	1-4	$25
		C. E. Badgley	Otol	.....	1,151	.....	10,290	2	2	1	7/1	1-4	$25
City of Detroit Receiving Hospital *[1]	Detroit	P. Heath and J. M. Robb	OpOt	966		9,015		0	2	0	7/15	1	$108.33
Grace Hospital *	Detroit	N. Bentley	OpOt	2,507		3 504	1,892	1	0	0	9/1	2	$100
Harper Hospital *	Detroit	P. Heath and J. M. Robb	OpOt	3,482		.....	.....	1	1	1	7/1	1	$25

Numerical and other references will be found on page 1344.

13. OPHTHALMOLOGY AND OTOLARYNGOLOGY—(Continued)

			Chief of Service	Residency Approved	Inpatients Treated		Outpatients Treated		Residents	Assistant Residents	Fellows	Service Begins	Length of Service	Beginning Year's Stipend
					Oph	Otol	Oph	Otol						
Henry Ford Hospital *	Detroit	E. L. Whitney	Oph		302	.....	17,788	.....	1	2	0	7/1	3	$130
		J. L. Lewis	Otol		.....	1,173	.....	18,072	1	2	0	7/1	3	$130
Shurly Hospital	Detroit	M. Wainger and B. Shurly	OpOt		63	450	4,000	1,127	4	0	0	7/1	1-3	$25
Eloise Hospital and Infirmary *[1]	Eloise, Mich.	R. Beattie	OpOt		357		2,898		1	1	0	7/1	1	$94.58
Minneapolis General Hospital *[1]	Minneapolis	W. K. Haven	OpOt		1,028		9,985		0	0	3	1/1, 7/1	3	$25
University Hospitals *	Minneapolis	F. E. Burch	Oph		270	.....	6,579	.....	0	0	2	7/1	1-3	$50
		L. Boise	Otol		.....	326	.....	5,478	0	0	2	7/1	1-3	$50
Mayo Foundation	Rochester, Minn.	W. L. Benedict and H. I. Lillie	OpOt		(See page 1344)									
Ancker Hospital *	St. Paul, Minn.	R. O. Leavenworth	OpOt		160	1,050	6,310	4,858	2	0	0	7/1	2	$50
Children's Mercy Hospital	Kansas City, Mo.	A. J. Baer and H. Beal	OpOt		70	838	1,962	3,712	..	..	..	7/1	1-2	$25
Kansas City General Hospital *	Kansas City, Mo.	A. J. Baer and T. S. Blakesley	OpOt		157	306	3,647	3,600	1	0	0	7/1	1-2	$50
Barnes Hospital *	St. Louis		Oph		523	.....	.....	.....	1	1	0	1/1, 7/1	1-3	$25
			Otol		.....	1,157	.....	.....	1	7	0	7/1	1-2	$25
Homer G. Phillips Hospital *	St. Louis	W. H. Meinberg and W. T. K. Bryann	OpOt		171	418	2,942	3,212	1	0	0	7/1	1-3	$75
Jewish Hospital *[1]	St. Louis	S. B. Westlake	Otol		.....	494	.....	1,603	1	0	0	7/1	1+	$65
St. Louis City Hospital *[1]	St. Louis	L. J. Post	Oph		149[b]	.....	8,497[b]	.....	1	1	0	7/1	1-2	$50
		A. C. Stutzman	Otol		.....	760[b]	.....	8,611[b]	1	1	0	7/1	1-2	$100
St. Mary's Group of Hospitals *	St. Louis	W. H. Luedde	Oph		148	.....	9,442	.....	0	1	0	7/1	3	$25
		W. E. Sauer	Otol		.....	138	.....	4,388	..	..	..	7/1	3	$25
Jersey City Hospital *[1]	Jersey City, N. J.	F. X. Brophy and M. Borrone	OpOt		329	1,867	5,653	6,532	2	3	0	7/1	1-2	$75
Newark City Hospital *	Newark, N. J.	W. P. Eagleton	Otol		.....	2,100	.....	.....	1	0	0	1/1	1	$20
Newark Eye and Ear Infirmary	Newark, N. J.	W. Appleton	Otol		732	1,356	10,976	13,439	3	0	0	2/1, 6/1, 10/1	1	None
Albany Hospital *[1]	Albany, N. Y.	H. K. Tebbutt	Otol		892		.....	.....	1	1	0	7/1	2+	$25
Brooklyn Eye and Ear Hospital	Brooklyn		Oph		2,043	.....	61,457	.....	6	0	0	5/1, 7/1, 11/1	2+	None
			Otol		.....	5,253	.....	56,014	8	0	0	Quart.	2	None
Jewish Hospital *[1]	Brooklyn	E. L. Berger	Otol		.....	652	.....	6,459	0	1	0	7/1	1	$25
Kings County Hospital *	Brooklyn	W. Moehle	Oph		502	.....	13,371	.....	1	1	0	1/1, 7/1	1	$18
		M. C. Myerson	Otol		.....	2,568	.....	11,523	1	2	0	1/1, 7/1	2	$18
Long Island College Hospital *[1]	Brooklyn	J. N. Evans	Oph		238	.....	5,182	.....	1	1	2	7/1	4	$22.50
		R. L. Moorhead	Otol		.....	640	.....	6,703	1	1	0	7/1	2	$22.50
Buffalo General Hospital *[1]	Buffalo	J. F. Fairbairn	Otol		.....	940	.....	.....	1	2	0	7/1	1	$25
Edward J. Meyer Memorial Hospital *	Buffalo	I. J. Koenig	Oph		165	.....	5,192	.....	1	0	0	7/1	3	$50
		H. E. Bozer	Otol		.....	365	.....	4,889	1	1	0	7/1	3	$50
Queens General Hospital *[1]	Jamaica, N. Y.	W. G. Frey	Oph		334	.....	7,942	.....	1	0	0	7/1	1	$18
		M. S. Bender	Otol		.....	1,217	.....	6,763	1	0	0	7/1	1	$100
New Rochelle Hospital *	New Rochelle, N. Y.	A. L. Beck	Otol			1,078		5,442	1	0	0	7/1	1	....
Bellevue Hospital *[1]	New York City	D. B. Kirby	Oph		599	.....	991	.....	..	..	..	.....	...	....
		J. W. Fowlkes	Otol		.....	3,031	.....	862	..	..	..	.....	...	....
Flower and Fifth Avenue Hospitals *	New York City	J. A. W. Hetrick	Otol		.....	735	.....	5,068	2	0	0	7/1	2	$25
Harlem Eye and Ear Hospital [1]	New York City		Oph		364	1,095	18,496	11,918	3	0	0	7/1	1	....
Harlem Hospital *[1,7]	New York City		Otol		.....	1,400	.....	15,803	1	0	0	7/1	1	$18
Manhattan Eye, Ear and Throat Hospital	New York City		Oph		2,110	.....	81,631	.....	7	0	0	1/1, 5/1, 9/1	2½	None
			Otol		.....	12,007	.....	70,433	8	0	0	Quart.	2	None
Metropolitan Hospital *[1]	New York City	C. Turtz	Oph		199	.....	4,472	.....	1	0	0	7/1	1+	$18
		J. A. W. Hetrick	Otol		.....	1,196	.....	3,683	1	0	0	7/1	1+	$100
Mount Sinai Hospital *[1]	New York City		Oph		.....	.....	.....	.....	1	1	0	7/1	2	$50
			Otol		.....	.....	.....	.....	1	1	0	7/1	2	$50
New York City Hospital *	New York City	O. C. Risch	Otol		.....	1,037	.....	5,067	1	0	0	7/1	1	$50
New York Eye and Ear Infirmary [1]	New York City		Oph		2,992	.....	76,450	.....	12	0	0	1/1	2-3	None
			Otol		.....	3,159	.....	43,189	8	0	0	1/1	2-3	None
New York Polyclinic Medical School and Hospital *	New York City	C. E. McDannald and S. J. Kopetzky	OpOt		134	1,049	.....	.....	4	0	0	1/1, 7/1	...	....
New York Post-Graduate Medical School and Hospital *	New York City	J. W. White	OpOt		317	.....	11,040	.....	1	5	0	5/1, 11/1	3[r]	....
		A. Nilsen	Otol		.....	1,255	.....	15,647						
Presbyterian Hospital *[1]	New York City	P. Thygeson and J. H. Dunnington	Oph		2,226	.....	35,123[b]	.....	1	5	0	1/1, 7/1	3	None
		J. D. Kernan	Otol		.....	1,633	.....	29,386[b]	1	5	0	1/1, 7/1	3	None
Roosevelt Hospital *	New York City	C. N. Harper	Otol		.....	843	.....	6,000	1	0	0	7/1	2	....
St. Luke's Hospital *	New York City	W. G. Frey	Oph		222	.....	9,468	.....	1	1	0	7/1	1	$25
		W. C. Bowers	Otol		.....	1,039	.....	9,000	1	2	0	9/1	3	$25
Welfare Hospital for Chronic Diseases *[1]	New York City		Oph		831	.....	394	.....	1	1	0	7/1	1+	$18
Rochester General Hospital *	Rochester, N. Y.	E. W. Kennedy and C. S. Nash	OpOt		.....	.....	4,932	3,286	2	0	0	7/1	1-2	$50
Strong Memorial and Rochester Municipal Hospitals *	Rochester, N. Y.	J. F. Gipner	Oph		376	.....	8,846	.....	1	1	0	7/1	2	$41.66
		C. A. Heatly	Otol		.....	1,074	.....	5,326	1	1	0	7/1	2	$41.66
Seaview Hospital [1]	Staten Island, N. Y.	M. C. Myerson	Otol		.....	2,198	.....	.....	2	0	0	1/1, 7/1	1-2	$100
Grasslands Hospital *	Valhalla, N. Y.	E. C. Wood	Otol		100	.....	5,381	.....	1	0	0	7/1	1-2	$75
		M. T. Smith	Otol		.....	361	.....	2,362	1	0	0	7/7	1-2	$75
Duke Hospital *[1]	Durham, N. C.	W. B. Anderson and W. W. Eagle	OpOt		320	814	5,027	4,615	2	1	0	7/1	1	$41
Cincinnati General Hospital *	Cincinnati	D. Vail	Oph		445	.....	11,371	.....	1	1	0	7/1	1-2	*
		S. Iglauer	Otol		.....	1,194	.....	5,423	1	1	0	7/1	1-2	*
City Hospital *[1]	Cleveland	P. W. Moore	Oph		204	.....	6,154	.....	1	0	0	7/1	1	$65
		C. W. Engler	Otol		.....	711	.....	3,752	1	1	0	7/1	1-2	$40
Cleveland Clinic Foundation Hospital *	Cleveland	P. M. Moore	Otol		.....	386	.....	.....	0	0	3	7/1	1-3	$65
St. Luke's Hospital *	Cleveland	W. H. Tuckerman	Otol		.....	1,601	.....	3,871	1	1	0	6/25	2	$50
University Hospitals *[1]	Cleveland	A. B. Bruner	Oph		705	.....	10,450	.....	1	1	0	7/1	2	$25
		C. Pitkin	Otol		.....	1,826	.....	8,229	1	2	0	Varies	2	$25
Starling-Loving University Hospital *[7]	Columbus		OpOt			520		6,789		1	0	7/1	1	$25
University Hospitals *	Oklahoma City	L. Westfall and T. Walls	OpOt		279	459	3,440	2,402	1	1	0	7/1	1	$50
University of Oregon Medical School Hospitals and Clinics *[1]	Portland, Ore.	F. A. Kiehle	Oph		266	.....	12,785	.....	1	0	0	7/1	1	$40
		R. A. Fenton	Otol		.....	1,666	.....	8,332	1	0	0	7/1	1	$40
George F. Geisinger Memorial Hospital *[1]	Danville, Pa.	F. W. Davison	Otol		.....	646	.....	4,585	1	0	0	7/1	1	$50
Graduate Hospital of the University of Pennsylvania *	Philadelphia	W. Shoemaker	Oph		322	.....	4,541	.....	1	0	0	7/1	2	None
		R. Ruttle	Otol		.....	1,655	.....	2,146	3	0	0	7/1	2	None
Hospital of the University of Pennsylvania *	Philadelphia	F. H. Adler	Oph		433	.....	6,694	.....	0	0	4	7/1	3	None
Jefferson Medical College Hospital *	Philadelphia	H. Williams and L. H. Clerf	Otol		.....	1,326	.....	9,737	1	0	0	9/1	1	$50
Philadelphia General Hospital *[1]	Philadelphia		Oph		150	.....	.....	.....	1	0	0	8/1	1-2	$50
Temple University Hospital *	Philadelphia		Oph		223	.....	5,856	.....	3	0	0	7/1	3	$40
			Otol		.....	1,152	.....	4,226	1	0	0	7/1	3	$40
Wills Hospital [1]	Philadelphia		Oph		3,744	.....	132,031	.....	9	0	0	*	1½	....
Eye, Ear, Nose and Throat Hospital	Pittsburgh	W. E. Carson and J. H. McCready	OpOt		764	3,600	.....	13,981	3	0	0	7/1	3	None
Mercy Hospital *	Pittsburgh	W. L. Allison	Otol		.....	1,290	.....	.....	1	0	0	9/1	3	$50
Knoxville General Hospital *	Knoxville, Tenn.		OpOt			596		4,738	1	0	0	7/1	1	....

Numerical and other references will be found on page 1344.

13. OPHTHALMOLOGY AND OTOLARYNGOLOGY—(Continued)

	Chief of Service	Residency Approved	Inpatients Treated: Oph	Inpatients Treated: Otol	Outpatients Treated: Oph	Outpatients Treated: Otol	Residents	Assistant Residents	Fellows	Service Begins	Length of Service (Years)	Beginning (Years) Stipend
Memphis Eye, Ear, Nose and Throat Hosp.	Memphis, Tenn. E. C. Ellett and L. Levy	OpOt	1,574		17,139		4	0	0	1/1, 7/1	2	None
Nashville General Hospital *	Nashville, Tenn. E. L. Roberts	OpOt	126	568	2,516	5,717	1	1	0	7/1	1-2	$35
Vanderbilt University Hospital *[1]	Nashville, Tenn. G. M. Manes	Otol	.....	855	.....	4,214	1	0	0	7/1	2-3	$32
Parkland Hospital *[1]	Dallas, Tex. G. Jones and J. D. Singleton	OpOt	158	471	2,978	4,653	1	0	0	7/1	1	$25
Jefferson Davis Hospital *	Houston, Tex. E. W. Griffey	Oph	351	.....	4,100	.....	1	0	0	7/1	1	$50
	G. C. Farrish	Otol	.....	658	.....	4,877	1	0	0	7/1	1	$50
University of Virginia Hospital *	Charlottesville, Va. E. Burton and F. D. Woodward	OpOt	1,369		7,621		1	2	0	7/1	1	$25
Medical College of Virginia Hospital Div.*[1]	Richmond, Va. R. H. Courtney and P. Pastore	OpOt	266	1,045	.....	.....	1	0	0	7/1	1	....
Gill Memorial Eye, Ear and Throat Hosp.[1]	Roanoke, Va. E. G. Gill	OpOt	151	944	5,385	8,183	1	2	0	1/1, 7/1	1-3	$50
King County Hospital *	Seattle. A. T. Wanamaker	OpOt	237	683	4,455	4,291	1	0	0	7/1	1	$80
State of Wisconsin General Hospital *[1]	Madison. F. A. Davis and W. M. Nesbit	OpOt	1,008		3,393		1	2	0	7/1	3	$25
Milwaukee County Hospital *[1]	Wauwatosa, Wis. E. R. Ryan and W. E. Grove	OpOt	195	1,162	14,642	6,110	1	3	0	7/1, 7/15	1	$50

14. ORTHOPEDIC SURGERY

Revision of list is now taking place in collaboration with the American Board of Orthopaedic Surgery

	Chief of Service	Inpatients Treated*	Outpatient Visits	Deaths	Autopsies	Residents	Assistant Residents	Fellows	Service Begins	Length of Service (Years)	Beginning Stipend
Hillman Hospital *	Birmingham, Ala. J. D. Sherrill	720	5,552	29	7	1	0	0	7/1	1	$50
Children's Hospital [1]	Los Angeles. J. Wilson	352	4,652	.....	..	1	0	0	7/1	1	$50
Los Angeles County Hospital *[1]	Los Angeles. J. Dunlop	3,966	36,771	145	15	4	0	0	7/1	3	$10
Orthopaedic Hospital	Los Angeles. P. Lewin	2,047	36,886	1	..	2	0	0	7/1	2-3	$50
White Memorial Hospital *	Los Angeles. G. M. Taylor	431	9,433	7						..	....
Children's Hospital *[1]	San Francisco. L. C. Abbott	310	1,491	4	..	1	0	0	7/1	1	$25
San Francisco Hospital *[1]	San Francisco.										
Shriners' Hospital for Crippled Children	San Francisco. S. L. Haas	300	3,161	1	..	1	0	0	7/7	1	$60
University of California Hospital *[1]	San Francisco. L. C. Abbott	251	8,922	.....	..	0	2	0	9/1	1+	$25
Children's Hospital [1]	Denver.	655	5,140	1	1	2	0	0	1/1, 7/1	1-2	$50
New Haven Hospital *[1]	New, Haven, Conn. A. Bassin	590	6,610	15	13	1	0	0	7/1	1+	*
Central Dispensary and Emergency Hospital *	Washington, D. C. G. Leadbetter	1,292	.....	21	4	1	0	0	7/1	1	$75
Georgia Warm Springs Foundation	Warm Springs, Ga. C. E. Irwin	378	388	0	0	1	1	0	7/1	1-3	....
Children's Memorial Hospital [1]	Chicago. F. A. Chandler	.....	3,151	.....	..	1	0	0	7/1	1+	$50
Cook County Hospital *[1]	Chicago. P. Lewin	921	19,227	18	10	2	0	0	1/1, 7/1	2	$25
Michael Reese Hospital *[1]	Chicago. P. Lewin	613	4,985	2	..	1	0	0	7/1	1-3	$50
Research and Educational Hospitals *	Chicago. H. B. Thomas	403	.....	2	2	3	0	0	7/1	1-3	$50
Shriners' Hospital for Crippled Children	Chicago. B. H. Moore	231	2,320	2	..	1	1	0	7/1	1	$50
University of Chicago Clinics *	Chicago. H. C. Hatcher	552	6,428	6	5	..	3	1	7/1	1-3	None
Indiana University Medical Center *[1]	Chicago. L. A. Ensminger	1,343	12,743	13	7	2	2	0	7/1	1-3	$66.33
University Hospitals *[1]	Iowa City. A. Steindler	4,516	6,623	7	5	1	8	0	7/1	1-2	$20.33
Kosair Crippled Children's Hospital	Louisville, Ky. R. Owen	1,032	.....	1	..	1	1	0	7/1	1	$25
Louisville General Hospital *	Louisville, Ky. W. B. Owen	1,130	9,705	59	15	1	0	0	7/1	1-2	$50
Charity Hospital *[1]	New Orleans.	3,937	38,311	26	3	6	12	0	7/1	1-3	$25
Shriners' Hospital for Crippled Children	Shreveport, La. H. A. Durham	200	1,158	.....	..	1	0	0	Varies	1-2	$125
James Lawrence Kernan Hospital for Crippled Children	Baltimore. A. F. Voshell	306	5,734	7	1	1	1	0	7/1	1	$92
Johns Hopkins Hospital *	Baltimore. G. E. Bennett	682	16,232	14	7	1	2	0	7/1, 9/1	1-4	....
Boston City Hospital *	Boston. O. J. Hermann	1,482	.....	26	24	1	1	0	Varies	...	$83.33
Children's Hospital	Boston. F. R. Ober	478	11,841	.....	..	1	0	0	9/1	1	....
Lahey Clinic	Boston.	.....	.....	.....	..	..	..	..	.....	...	....
Massachusetts General Hospital *	Boston. N. N. Smith-Petersen	502	13,180	7	1	1	0	0	.....	...	....
Shriners' Hospital for Crippled Children	Springfield, Mass. R. N. Hatt	361	2,738	.....	..	1	0	0	1/1	1	$25
University Hospital *[1]	Ann Arbor, Mich. C. E. Badgley	1,763	10,290	13	6	1	3	0	7/1	1-4	$25
Henry Ford Hospital *	Detroit. C. L. Mitchell	1,111	13,108	3	1	1	1	0	7/1	2-3	$130
Mayo Foundation	Rochester, Minn. M. S. Henderson and R. K. Ghormley	(See page 1344)									
Gillette State Hospital for Crippled Children [1]	St. Paul. C. C. Chatterton	938	7,000	9	9	0	0	2	1/1, 7/1	1	$50
State Hospital for Crippled Children	Columbia, Mo. W. J. Stewart	719	1,592	1	1	1	0	0	7/1	1	$50
Kansas City General Hospital *	Kansas City, Mo. I. Hess	610	4,659	36	28	1	0	0	7/1	1	$50
St. Luke's Hospital *	Kansas City, Mo. F. Dickson	741	4,680	2	1	1	..	..	7/1	1	$50
St. Mary's Group of Hospitals *	St. Louis. A. O'Reilly	477	4,281	9	3	0	1	0	7/1	3	$25
Shriners' Hospital for Crippled Children	St. Louis. J. Schwartzmann	418	245	3	2	1	0	0	1/1	1-2	Varies
Nebraska Orthopedic Hospital	Lincoln. H. W. Orr	408	2,363	4	3	1	0	0	7/1	1-2	$80
Jersey City Hospital	Jersey City, N. J. S. Sprague	1,228	12,881	40	2	1	2	0	1/1, 7/1	1+	....
Hospital and Home for Crippled Children	Newark, N. J. J. E. Toye	384	6,908	6	..	1	0	0	7/1	1	$100
New Jersey Orthopaedic Hospital and Dispensary	Orange, N. J. H. W. Smith	496	24,790	4	..	1	2	0	.....	1+	$60
Kings County Hospital *	Brooklyn. J. B. L'Episcopo	476	14,603	.....	..	1	2	0	7/1	3	$18
Long Island College Hospital *	Brooklyn. J. B. L'Episcopo	408	11,616	6		1	1	0	.....	2-3	$22.50
Buffalo General Hospital *[1]	Buffalo. W. W. Plummer	646	.....	14	2	1	0	0	7/1	1	$50
Edward J. Meyer Memorial Hospital *	Buffalo. A. A. Gartner	170	3,563	1	1	1	1	0	7/1	1-3	$50
Bellevue Hospital *[1]	New York City. A. Krida	266	100	.....	.....	..	..	..	.....	...	....
Hospital for Joint Diseases *	New York City.	3,050	35,491	21	11	13	0	0	1/1	2½-3½	$25
Hospital for Special Surgery	New York City. P. D. Wilson	1,608	27,886	3	1	7	0	1	Quart.	2	$20
Metropolitan Hospital *[1]	New York City. M. J. Wilson	926	2,066	25	4	1	0	0	7/1	1-2	$75
Mount Sinai Hospital *[1]	New York City.	.....	.....	.....	..	1	0	0	7/1	1	$50
New York Orthopaedic Dispensary and Hospital	New York City. A. D. Smith	1,128	16,639	4	2	8	0	7	.....[2]	1..	....
St. Luke's Hospital *	New York City. M. Cleveland	371	5,646	4	2	1	0	0	7/1	3	$25
Strong Memorial and Rochester Municipal Hospitals *	Rochester, N. Y. R. P. Schwartz	601	7,321	.....	..	1	0	1	7/1	1-2	$66.66
Sea View Hospital [1]	Staten Island, N. Y. D. Bosworth	304	.....	17	7	2	0	0	1/1, 7/1	1	$100
New York State Reconstruction Home	W. Haverstraw N. Y. H. Hallock	201	205	1	1	2	1	0	7/1	1-2	$100
Duke Hospital *[1]	Durham, N. C. L. D. Baker	662	6,103	8	3	1	2	0	7/1	1	$41
Cincinnati General Hospital *	Cincinnati. J. Freiberg	414	4,056	4	1	0	2	0	7/1	1-2	*
Cleveland Clinic Foundation Hospital *	Cleveland. J. A. Dickson	496		5	2	0	0	3	7/1	1-3	$65
Mount Sinai Hospital *[1]	Cleveland. R. S. Reich	854	7,330	6	2	1	0	0	7/1	1	$60
University Hospitals *[1]	Cleveland. M. Harbin	532	6,829	4	1	1	0	0	7/1	2	$25
Bone and Joint Hospital and McBride Clinic [1]	Oklahoma City. E. D. McBride	649	.....	.....	..	1	0	0	7/1	1-2	$40
St. Anthony Hospital *	Oklahoma City. W. K. West	953	.....	.....	..	1	0	0	7/1	1	$60

Numerical and other references will be found on page 1344.

14. ORTHOPEDIC SURGERY—(Continued)

Revision of list is now taking place in collaboration with the American Board of Orthopaedic Surgery

		Chief of Service	Inpatients Treated *	Surgical Specimens	Number Examined Microscopically	Autopsy Percentage	Residents	Assistant Residents	Fellows	Service Begins	Length of Service (Years)	Beginning Stipend
University Hospitals *	Oklahoma City	P. C. Colonna	1,226	10,562	21	8	3	0	1	7/1	1-3	$50
Mercy Hospital for Crippled Children	Tulsa, Okla.	W. Sister	692	7,018	10	3	1	0	0	7/1	1-2	$100
Emanuel Hospital *	Portland, Ore.	R. B. Dillehunt	1,676	.....	22	10	1	0	0	7/1	1	$40
Shriners' Hospital for Crippled Children	Portland, Ore.	R. B. Dillehunt	389	1,914	.....	..	1	0	0	7/1	1	$40
University of Oregon Medical School Hospitals and Clinics *[1]	Portland, Ore.	R. B. Dillehunt	883	6,148	37	19	1	2	0	7/1	1	$40
State Hospital for Crippled Children	Elizabethtown, Pa.	.....	384	888	3	1	3	0	0	9/1	2	$100
Temple University Hospital *	Philadelphia	.....	620	5,002	4	1	3	0	0	7/1	3	$40
Robert Packer Hospital *	Sayre, Pa.	P. H. Harmon	675	5,397	3	2	0	0	2	9/1	2-3	$50
Roper Hospital *	Charleston, S. C.	F. A. Hoshall	668	2,042	7	3	1	0	0	7/1	1	.....
Willis C. Campbell Clinic	Memphis, Tenn.	J. S. Speed	1,186	9,544	11	3	6	0	7	1/1, 7/1	3	$50
Parkland Hospital *[1]	Dallas, Tex.	P. M. Girard	306	7,409	.....	..	1	0	0	.....	...	$25
Texas Scottish Rite Hospital for Crippled Children [1]	Dallas, Tex.	W. B. Carrell	684	3,831	1	..	1	1	0	7/1	1	$25
University of Virginia Hospital *	Charlottesville, Va.	R. V. Funsten	537	4,869	11	4	1	1	0	7/1	1	$33
Children's Orthopedic Hospital [1]	Seattle	H. J. Weykoff	389	4,519	2	2	1	0	0	7/1	1	$100
State of Wisconsin General Hospital *[1]	Madison	R. E. Burns	1,809	4,159	7	6	2	3	0	7/1	3	$25
Milwaukee County Hospital *[1]	Wauwatosa, Wis.	C. C. Schneider	1,122	8,295	70	5	1	0	0	7/1, 7/15	1	$50

15. PATHOLOGY

Revision of list is now taking place in collaboration with the American Board of Pathology

Hillman Hospital *	Birmingham, Ala.	G. S. Graham	10,592	4,380	2,041	28	1	0	0	7/1	1	$50
Cedars of Lebanon Hospital *	Los Angeles	A. H. Zeiler	8,831	4,019	2,184	35	1	0	0	7/1	1	$75
Children's Hospital [1]	Los Angeles	A. Wright	4,971	326	314	85	1	0	0	7/1	1	$50
Los Angeles County Hospital *[1]	Los Angeles	N. Evans	49,376	8,601	7,740	60	5	0	0	1/1, 7/1	2-3	$10
St. Vincent's Hospital *	Los Angeles	J. E. Kahler	8,078	2,829	1,551	47	1	0	0	7/1	1	$60
White Memorial Hospital *	Los Angeles	O. B. Pratt	8,036	5,691	3,420	50	1	0	0	7/1	1-3	$100
Highland-Alameda County Hospital *[1]	Oakland, Calif.	G. Moore	10,413	3,471	1,887	54	1	0	0	7/1	1-3	$20
Collis P. and Howard Huntington Memorial Hospital *	Pasadena, Calif.	A. G. Foord	6,751	4,211	2,707	62	1	0	0	8/1	1	$100
French Hospital *[1]	San Francisco	D. A. Wood	4,230	857	810	49	1	0	0	7/1	1	$50
Mount Zion Hospital *	San Francisco	G. Y. Rusk	4,275	1,771	895	54	0	1	1	7/1	1	$50
San Francisco Hospital *[1]	San Francisco	R. J. Reis	16,740	2,132	2,132	47	0	2	0	7/1	1	.....
Stanford University Hospitals *[1]	San Francisco	A. J. Cox Jr.	8,911	6,638	3,308	50	2	0	1	7/1	1	$25
University of California Hospital *	San Francisco	J. F. Rinehart	7,228	2,848	2,848	88	1	0	0	7/1	1+	$25
Santa Barbara Cottage Hospital *	Santa Barbara, Calif.	W. J. Tomlinson	3,921	683	498	65	1	0	0	7/1	1	$25
Denver General Hospital *	Denver	F. Mayner	8,406	2,421	2,154	57	1	0	0	7/1	1	$50
St. Francis Hospital *	Hartford, Conn.	L. F. Hastings	14,685	2,740	2,365	38	1	0	0	7/1	1	$25
New Haven Hospital *[1]	New Haven, Conn.	M. C. Winternitz	11,458	3,213	3,213	57	4	0	1	7/1	1-4	$10
Children's Hospital	Washington, D. C.	J. W. Lindsay and E. C. Rice	7,966	184	32	89	1	0	0	Varies	1-2	$50
Gallinger Municipal Hospital *	Washington, D. C.	E. R. Whitmore	16,980	2,568	1,955	50	1	0	0	7/1	1-2	None
Garfield Memorial Hospital *	Washington, D. C.	.....	9,689	3,700	1,710	66	1	0	0	7/1	1-2	$50
Georgetown University Hospital *	Washington, D. C.	V. J. Dardinski	6,224	2,620	548	53	1	0	4	7/1	1-3	$50
George Washington University Hospital *	Washington, D. C.	R. M. Choisser	2,773	542	542	51	2	0	0	7/1	1-2	$83.33
Sibley Memorial Hospital *	Washington, D. C.	O. B. Hunter	8,837	2,765	1,532	50	1	0	0	7/1	1	$65
Grady Hospital *	Atlanta, Ga.	R. Mosteller	21,797	6,810	6,810	49	1	2	0	7/1	1-3	$20
University Hospital *[1]	Augusta	E. R. Pund	10,305	2,774	2,774	32	1	0	0	7/1	1-3	$40
Emory University Hospital *	Emory University, Ga.	R. R. Kracke	6,764	1,705	1,701	38	2	0	0	7/1	1-3	$50
Children's Memorial Hospital [1]	Chicago	W. G. Hibbs	4,196	224	223	59	1	0	0	1/1, 7/1	1	$79.16
Cook County Hospital *[1]	Chicago	W. Schiller	80,581	8,001	6,102	23	3	0	12	1/1, 7/1	1-3	$25
Michael Reese Hospital *[1]	Chicago	O. Saphir	15,517	4,297	4,297	64	2	4	1	Varies	1-3	$15
Mount Sinai Hospital *[1]	Chicago	I. Davidsohn	6,275	3,281	2,308	47	1	1	0	6/15	1	$50
Passavant Memorial Hospital *[1]	Chicago	D. O. Marshardt	6,050	1,041	1,041	75	2	0	0	Varies	1-3	None
Presbyterian Hospital *	Chicago	C. Apfelbach	11,566	2,210	2,210	58	2	0	0	7/1	1-3	$50
Provident Hospital *[1]	Chicago	J. B. Lewis	3,832	815	815	49	1	0	0	7/1	1-3	$50
Research and Educational Hospitals *	Chicago	S. A. Levinson	5,694	1,560	1,560	91	2	0	0	7/1	1	$50
St. Luke's Hospital *[1]	Chicago	E. F. Hirsch	14,591	4,748	3,840	60	2	0	3	7/1	1-5	$25
University of Chicago Clinics *	Chicago	P. R. Cannon	11,554	2,770	1,618	81	1	0	1	1/1, 7/1	1	$25
Evanston Hospital *	Evanston, Ill.	E. L. Benjamin	8,148	1,003	1,004	80	1	0	0	5/1	1	$50
St. Francis Hospital *	Evanston, Ill.	O. T. Schultz	7,083	2,404	649	39	1	0	0	7/1	1+	$50
Methodist Hospital of Central Illinois *	Peoria, Ill.	O. O. Christianson	6,034	2,318	2,234	29	1	0	0	7/1	1-3	$50
St. Francis Hospital *	Peoria, Ill.	J. E. Kraus	10,323	2,504	2,504	34	1	0	0	7/1	1+	$100
Indianapolis City Hospital *	Indianapolis	H. C. Thornton	10,965	2,348	2,281	56	1	0	0	7/1	1	$41.64
Indiana University Medical Center *[1]	Indianapolis	C. G. Culbertson	10,066	3,815	3,815	50	2	1	0	7/1	1-3	$83.33
Methodist Hospital *	Indianapolis	H. M. Banks	15,855	5,013	5,013	37	2	0	0	7/1	1-2	$50
Ball Memorial Hospital *[1]	Muncie, Ind.	L. G. Montgomery	5,685	1,739	1,739	47	1	0	0	7/1	1	$75
Epworth Hospital *[7,9]	South Bend, Ind.	A. S. Giordano	16,823	3,400	2,151	38	1	0	0	1/1, 7/1	1-2	$100
University Hospitals *	Iowa City, Ia.	H. P. Smith	21,564	3,925	3,925	58	3	0	0	7/1	1-3	$85
University of Kansas Hospitals *[1]	Kansas City, Kan.	H. R. Wells	6,643	2,346	2,346	72	1	2	0	7/1	1-3	$50
St. Francis Hospital *	Wichita, Kan.	C. A. Hellwig	8,751	3,426	3,426	43	1	0	0	7/1	1	$100
Louisville General Hospital *	Louisville, Ky.	A. J. Miller	10,886	2,130	2,123	29	1	0	0	7/1	1-2	$13.91
Charity Hospital *[1]	New Orleans	E. S. Moss	58,272	11,502	11,502	43	6	9	0	7/1	1-4	$25
Touro Infirmary *	New Orleans	S. B. Colvin Jr.	12,269	3,056	3,056	69	2	1	0	7/1	1-3	$25
Shreveport Charity Hospital *	Shreveport, La.	W. R. Mathews	15,491	3,273	3,273	48	1	0	0	7/1	1	$100
Baltimore City Hospitals *	Baltimore	F. B. Kindell	6,061	851	840	54	1	1	0	7/1	1	$12.50
Johns Hopkins Hospital *	Baltimore	W. G. MacCallum	16,689	2,647	2,647	74	1	2	0	7/1, 9/1	1+	.....
University Hospital *	Baltimore	H. R. Spencer	9,289	2,315	2,315	48	0	1	0	7/1	1+	.....
Boston City Hospital *	Boston	F. Parker Jr.	43,181	4,440[5]	4,440[5]	70	3	0	0	7/1	3-4	$83.33
Boston Lying-in Hospital [10]	Boston	A. T. Hertig	6,367	3,873	3,873	41	1	0	0	1/1, 7/1	1	$50
Children's Hospital	Boston	S. B. Wolbach	5,701	736	736	80	1	0	0	7/1	1	$50
Massachusetts General Hospital *	Boston	T. B. Mallory	7,622	8,000	8,000	62	1	0	0	.....	...	.....
Massachusetts Memorial Hospital *[1]	Boston	C. F. Branch	6,895	1,484	1,484	76	1	0	0	7/1	1-3	$50
New England Deaconess Hospital	Boston	S. Warren	7,551	5,663	5,663	58	3	2	1	7/1, 9/1	1-2	$25
Peter Brent Brigham Hospital *	Boston	S. B. Wolbach	5,173	1,891	1,891	68	1	0	0	1/1, 7/1	1-2	$83.33
Worcester City Hospital *	Worcester, Mass.	R. H. Goodale	10,015	3,515	3,025	30	1	0	0	7/1	1	None
Worcester State Hospital [1]	Worcester, Mass.	W. Freeman	928	38	38	53	..	..	..	.....	...	.....
University Hospital *[1]	Ann Arbor, Mich.	C. V. Weller	17,551	6,282	6,282	66	1	0	1	7/1	1-3	$25
City of Detroit Receiving Hospital *[1]	Detroit	O. A. Brines	18,506	2,504	1,886	34	1	0	0	7/15	1-3	$100
Harper Hospital *	Detroit	P. F. Morse	18,388	6,735	6,735	38	2	0	0	7/1	1-5	$125
Henry Ford Hospital *	Detroit	F. W. Hartman	15,268	4,120	4,120	51	2	0	1	7/1	1-3	$150
Providence Hospital *	Detroit	D. H. Kaump	11,602	3,452	3,452	57	2	0	0	7/1	1	$140*
Woman's Hospital [1]	Detroit	G. D. Beaver	8 213	4,088	3,892	46	1	0	0	7/1	1	$75
Eloise Hospital and Infirmary *[1]	Eloise, Mich.	S. E. Gould	14,285	1,580	1,340	47	1	1	1	7/1	1	$94.58
Hurley Hospital *	Flint, Mich.	G. R. Backus	9 905	4,728	4,728	29	0	1	0	7/1	1	$100
St. Luke's Hospital *	Duluth, Minn.	A. H. Wells	6,805	1,826	1,700	71	1	0	0	7/1	1	$25
St. Mary's Hospital *	Duluth, Minn.	G. Berdez	7,240	1,448	1,448	72	..	..	..	.....	...	.....
Mayo Foundation	Rochester, Minn.	H. E. Robertson	(See page 1344)									
Ancker Hospital *	St. Paul	J. F. Noble	10,079	1,394	1,184	69	1	..	..	7/1	1	$50

Numerical and other references will be found on page 1344.

15—PATHOLOGY—(Continued)

Revision of list is now taking place in collaboration with the American Board of Pathology

		Chief of Service	Inpatients Treated*	Surgical Specimens	Number Examined Microscopically	Autopsy Percentage	Residents	Assistant Residents	Fellows	Service Begins	Length of Service (Years)	Beginning Stipend
Kansas City General Hospital ★	Kansas City, Mo.	V. Buhler	10,183	2,590	2,327	74	2	..	..	7/1	1+	$50
St. Joseph Hospital ★	Kansas City, Mo.	R. W. Kerr	7,447	3,402	2,396	62	1	..	..	7/1	1-3	$50
St. Luke's Hospital ★	Kansas City, Mo.	F. C. Helwig	6,966	3,757	2,512	74	1	..	..	7/1	1-3	$50
Barnes Hospital ★	St. Louis	R. A. Moore	11,723	3,084	3,084	60	..	1	..	7/1	1	$25
Homer G. Phillips Hospital ★	St. Louis	S. H. Gray	11,250	1,329	1,329	35	0	1	0	7/1	1	$75
Jewish Hospital ★1	St. Louis	S. H. Gray	7,304	1,668	1,594	38	..	1	..	7/1	1	$30
St. Louis City Hospital ★1	St. Louis	S. H. Gray	15,451	2,563	2,563	58	1	..	..	7/1	1-3	$125
Creighton Memorial St. Joseph's Hospital ★	Omaha	B. C. Ruesnun	9,358	8,641	6,661	26	1	..	..	7/1	1-3	$75
University of Nebraska Hospital ★	Omaha	J. P. Tollman	3,264	1,260	1,249	84	1	..	..	7/1	1	$50
Mary Hitchcock Memorial Hospital ★1	Hanover, N. H.	R. E. Miller	5,281	1,460	1,279	84	1	1	..	1/1, 7/1	1-3	$100
Newark Beth Israel Hospital ★1	Newark, N. J.	W. Antopol	11,429	3,994	3,994	44	1	1	..	1/1	1-2	$25
Albany Hospital ★1	Albany, N. Y.	A. W. Wright	12,154	5,637	5,637	69	1	5	..	7/1	1+	$62.50
Bender Hygienic Laboratory †	Albany, N. Y.	J. J. Clemmer	....	7,110	7,110	..	1	1	..	7/1	3-4	$100
Brooklyn Hospital ★	Brooklyn	J. A. deVeer	7,443	1,979	1,979	49	1	..	..	7/1	1-3	$75
Cumberland Hospital ★	Brooklyn	S. H. Polayes	6,900	1,201	1,201	59	1	..	..	7/1	1	$18
Israel Zion Hospital ★1	Brooklyn	J. M. Ravid	10,933	2,833	2,833	27	1	..	..	1/1	1-2	$35
Jewish Hospital ★1	Brooklyn	M. Lederer	13,254	6,623	6,623	46	1	1	..	7/1	1	$25
Kings County Hospital ★	Brooklyn	W. W. Hala	56,919	14,838	14,838	17	1	4	..	7/1	1-2	$50
Long Island College Hospital ★	Brooklyn	J. R. Oliver	8,582	2,806	2,806	44	1	..	..	7/1	1+	$45
St. John's Hospital ★	Brooklyn	A. R. Crane	4,776	1,200	1,088	45	1	..	..	1/1, 6/1	1	$25
Buffalo General Hospital ★1	Buffalo	K. Terplan	10,499	3,766	3,766	45	1	1	..	7/1	1	$25
Edward J. Meyer Memorial Hospital ★	Buffalo	W. F. Jacobs and S. Sanes	9,825	2,129	2,129	36	1	..	..	7/1	1-3	$50
Millard Fillmore Hospital ★	Buffalo	A. Lieber	8,748	4,490	3,967	35	1	..	..	7/1	1	$25
Meadowbrook Hospital ★	Hempstead, N. Y.	T. J. Curphey	5,088	1,482	1,443	53	2	..	..	7/1	1-2	$100
Queens General Hospital ★1	Jamaica	M. Angrist	12,385	3,061	2,905	75	1	..	..	7/1	1	$18
Beth Israel Hospital ★1	New York City	A. Plaut	8,513	2,388	2,313	42	2	0	0	7/1	1	$15
Fordham Hospital ★	New York City	L. R. Ferraro	12,163	1,559	1,559	34	1	..	..	7/1	1	$18
Harlem Hospital ★1	New York City	S. Weintraub	17,346	3,443	3,443	24	1	1	..	1/1, 7/1	1	$18
Lenox Hill Hospital ★1	New York City	G. L. Rohdenburg	12,154	2,183	2,183	40	..	..	..	7/1	..	None
Lincoln Hospital ★	New York City	C. Brown	12,382	2,054	2,054	36	2	..	..	7/1	1+	$18
Metropolitan Hospital ★1	New York City	A. Saccone	10,577	1,561	1,513	32	1	..	..	7/1	1-2	$70
Montefiore Hospital ★1	New York City	D. Marine	1,809	518	518	64	1	2	1	7/1	1-2	$50
Morrisania City Hospital ★	New York City	W. Aronson	12,851	2,593	2,593	30	1	..	..	1/1	1	$18
Mount Sinai Hospital ★	New York City	P. Klemperer	13,985	6,556	6,556	48	2	..	8	1/1, 7/1, 9/1	1	None
New York City Hospital ★	New York City	J. R. Lisa	9,484	1,923	1,567	37	1	..	..	7/1	1	$100
New York Hospital ★	New York City	W. Dock	16,867	5,877	3,882	67	1	..	..	7/1	1-2	$25
New York Post-Graduate Medical School and Hospital ★1	New York City	M. N. Richter	9,213	6,459	5,745	43	1	2	..	1/1, 7/1	1	$90
Presbyterian Hospital ★1	New York City	J. W. Jobling	18,440	4,513	4,118	59	1	2	..	7/1	1	None
Roosevelt Hospital ★	New York City	W. W. Brandes	7,263	2,181	2,134	45	1	..	..	7/1	1-2	$41.60
St. Luke's Hospital ★	New York City	F. C. Wood	8,698	2,462	2,462	51	1	..	..	7/1	1+	$100
St. Vincent's Hospital ★	New York City	A. Rottino	8,919	2,034	1,607	49	1	..	..	7/1	1	....
Sydenham Hospital ★	New York City	M. Gingler	6,511	2,933	2,691	45	1	..	..	7/1	1+	None
Welfare Hospital for Chronic Diseases ★1	New York City	J. Rosenthal	2,076	910	910	47	1	1	0	7/1	1	$50
Willard Parker Hospital	New York City	V. B. Dolgopol	6,411	30	30	75	1	..	..	7/1	1	$100
Rochester General Hospital ★	Rochester, N. Y.	I. Gaspar	8,683	6,796	5,881	60	1	..	..	7/1	1	$50
Strong Memorial and Rochester Municipal Hospitals ★1	Rochester, N. Y.	G. H. Whipple	13,689	3,055	3,055	71	1	..	2	7/1	1-2	$41.66
Samaritan Hospital ★	Troy, N. Y.	G. Klinck	4,743	2,316	2,316	56	1	0	0	7/1	1-2	$35
Grasslands Hospital ★	Valhalla, N. Y.	G. Dalldorf	4,949	1,485	1,157	65	1	1	..	7/1	1-2	$117.50
Duke Hospital ★1	Durham, N. C.	W. D. Forbus	11,964	8,225	8,225	55	..	4	..	7/1	1	$41
North Carolina Baptist Hospital ★	Winston-Salem	C. C. Carpenter	6,496	7,448	7,448	43	1	0	..	7/1	1-4	$41.61
City Hospital ★	Akron, Ohio	L. Catron	11,224	3,737	3,717	45	1	0	0	7/1	3	$60
Christ Hospital ★	Cincinnati	J. W. Leichliter	9,662	3,069	1,753	42	1	..	..	6/24	1	$75
Cincinnati General Hospital ★1	Cincinnati	R. S. Austin	16,506	1,875	1,863	56	5	..	..	7/1	1-2	*
City Hospital ★1	Cleveland	H. Lund	12,947	2,172	2,122	41	1	1	..	7/1	1-3	$115
Mount Sinai Hospital ★1	Cleveland	H. Elias	8,927	2,465	2,465	62	1	1	1	7/1	1+	$50
St. Luke's Hospital ★	Cleveland	R. Dominguez	10,432	2,903	2,703	41	1	1	..	6/25	2	$50
St. Vincent Charity Hospital ★	Cleveland	W. P. Jennings	7,327	1,567	1,554	31	1	0	0	7/1	1	$75
University Hospitals ★1	Cleveland	H. T. Karsner	18,094	4,100	4,100	53	2	2	1	7/1	1-4	$25
Starling-Loving University Hospital ★	Columbus	H. Reinhart	5,848	1,783	1,769	49	1	..	..	7/1	1	$25
White Cross Hospital ★	Columbus	R. S. Fidler	3,850	3,794	3,794	37	1	..	..	7/1	1	$25
Miami Valley Hospital ★	Dayton, O.	W. M. Simpson	10,880	4,206	4,206	38	1	..	..	7/1	1-3	$75
Youngstown Hospital ★	Youngstown, O.	G. B. Kramer	14,138	5,923	4,294	26	1	..	..	7/1	1	$200
University Hospitals ★	Oklahoma City	H. Jeter	6,229	2,267	1,668	48	1	..	..	7/1	1	$50
Emanuel Hospital ★1	Portland, Ore.	H. L. Foskett	9,464	2,122	1,818	42	1	0	0	7/1	1	....
St. Vincent's Hospital ★	Portland, Ore.	T. D. Robertson	10,345	3,458	3,458	50	1	..	..	7/1	1	$50
University of Oregon Medical School Hospitals and Clinics ★1	Portland, Ore.	F. R. Menne	8,854	2,243	2,243	65	3	..	..	7/1	1-3	$30
Abington Memorial Hospital ★	Abington, Pa.	J. Elman	6,620	3,815	2,024	58	1	..	..	10/1	1+	$100
Bryn Mawr Hospital ★	Bryn Mawr, Pa.	M. S. Sirmula	4,875	1,704	1,704	46	1	0	0	7/1	1-2	$30
George F. Geisinger Memorial Hospital ★1	Danville, Pa.	H. F. Hunt	5,381	1,411	1,380	30	1	..	..	7/1	1	$50
Pittsburgh City Home and Hospitals †	Mayview, Pa.	G. H. Fetterman	1,069	165	165	20	1	1	..	9/1	1-3	$150
Germantown Dispensary and Hospitals ★	Philadelphia	F. B. Lynch Jr.	6,986	1,297	957	50	1	..	..	7/1	1-3	$125*
Graduate Hospital of the University of Pennsylvania ★	Philadelphia	E. A. Case	6,203	1,840	1,840	36	1	..	..	7/1	1	None
Hahnemann Hospital ★	Philadelphia	S. W. Sappington	13,081	3,238	2,944	55	2	..	..	9/1	1	$50
Hospital of the Protestant Episcopal Church ★1	Philadelphia	W. P. Belk	8,268	1,333	1,333	69	1	..	..	7/1	1	None
Hospital of the University of Pennsylvania ★	Philadelphia	E. B. Krumbhaar	10,892	4,173	3,350	90	1	..	..	7/1	1	None
Jewish Hospital ★1	Philadelphia	E. Steinfield	7,888	2,201	2,201	61	1	..	..	7/15	1	$50
Mount Sinai Hospital ★1	Philadelphia	D. R. Meranze	6,869	1,960	1,960	57	1	..	..	7/15	1-2	$25
Pennsylvania Hospital ★	Philadelphia	J. T. Bauer	8,993	2,112	2,112	65	2	..	..	7/1	1-2	$20
Philadelphia General Hospital ★1	Philadelphia	J. H. Clark	27,115	3,153	3,132	66	2	..	..	8/1	1-2	$50
Presbyterian Hospital ★	Philadelphia	R. P. Custer	5,543	1,478	1,478	80	2	..	..	9/1	1+	$50
Temple University Hospital ★	Philadelphia	L. W. Smith	9,047	20,744	20,744	63	1	..	..	7/1	1-3	$40
Allegheny General Hospital ★	Pittsburgh	S. R. Haythorn	9,437	3,312	1,774	22	2	..	..	9/1	1	$85
Children's Hospital †	Pittsburgh	M. L. Menten	3,892	112	112	61	..	1	..	9/1	1	$40
Elizabeth Steel Magee Hospital †	Pittsburgh	M. Cohen	6,875	1,774	1,774	25	..	2	..	9/1	1	$41.67
Mercy Hospital ★	Pittsburgh	H. H. Permar	13,185	3,515	3,339	32	2	2	..	9/1	1	$90
Montefiore Hospital ★	Pittsburgh	K. Yardumian	6,304	1,461	1,461	49	1	..	..	7/1	1-3	$50
Presbyterian Hospital ★1	Pittsburgh	G. R. Lacy	3,870	1,857	1,400	35	1	..	1	9/1	1-3	$41.66
St. Francis Hospital ★	Pittsburgh	A. J. Bruecken	12,419	5,580	1,605	26	4	..	..	9/1	1	....
Western Pennsylvania Hospital ★	Pittsburgh	P. Gross	10,729	2,045	2,045	30	1	..	..	7/1	1	$75
Reading Hospital ★	Reading, Pa.	E. D. Funk	5,810	1,688	1,203	59	1	..	..	9/1	1	$83
Rhode Island Hospital ★	Providence, R. I.	B. E. Clarke	9,236	3,004	3,004	48	1	..	..	7/1	1	$50
John Gaston Hospital ★	Memphis, Tenn.	H. C. Schmeisser	17,603	2,036	2,036	24	1	1	..	7/1	1	$33
Nashville General Hospital ★	Nashville, Tenn.	W. A. DeMonbreun	7,056	887	774	37	1	1	..	7/1	1-2	$50
Vanderbilt University Hospital ★1	Nashville, Tenn.	E. W. Goodpasture	6,105	2,097*	1,483*	57	1	2	..	7/1	1+	$35
Baylor University Hospital ★1	Dallas, Tex.	J. M. Hill	14,679	3,837	3,827	29	1	..	1	7/1	1	$50

Numerical and other references will be found on page 1344.

15. PATHOLOGY—(Continued)

	Chief of Service	Inpatients Treated °	Outpatient Visits	Deaths	Autopsies	Residents	Assistant Residents	Fellows	Service Begins	Length of Service (Years)	Beginning Stipend
Parkland Hospital *[1]	Dallas, Tex.	A. B. Cairns	9,764	2,631	2,350	21	1	.. ..	7/1	1	$25
Jefferson Davis Hospital *	Houston, Tex.	D. G. Henderson	14,545	2,534	2,534	28	1	1 ..	7/1	1	$25
Mary Fletcher Hospital *	Burlington, Vt.	E. A. Buttles	6,531	1,002	962	44	0	0 1	7/1	1	$100
Medical College of Virginia, Hospital Division *[1]	Richmond	F. L. Apperly	11,635	3,900	70	39	1	1 ..	7/1	1	$12.50
Tacoma General Hospital *	Tacoma, Wash.	C. P. Larson	7,621	1,985	1,443	28	1	0 0	7/1	1	$100
Charleston General Hospital *	Charleston, W. Va.	W. Putschar	10,327	2,588	2,181	41	1	.. ..	.....	...	$50
State of Wisconsin General Hospital *[1]	Madison	W. D. Stovall	10,206	3,264	2,897	72	2	.. ..	7/1	3	$25
Columbia Hospital *	Milwaukee	G. H. Hansmann	3,560	1,541	1,000	51	1	.. ..	7/1	3	$75
St. Joseph's Hospital *	Milwaukee	J. Grill	8,630	2,026	2,026	27	1	.. ..	6/15	1+	....
Milwaukee County Hospital *[1]	Wauwatosa, Wis.	J. Grill	15,062	1,624	1,552	29	1	2 ..	7/1, 7/15	1	$50
Gorgas Hospital *	Ancon, C. Z.	R. L. Cavenaugh	26,792	1,952	1,952	60	..	.. ..	.....	...	....
Queen's Hospital *	Honolulu, T. H.	L. Hirsch	11,175	2,818	2,798	37	1	.. ..	7/1	1	$100

16—PEDIATRICS

Revision of list is now taking place in collaboration with the American Board of Pediatrics

Children's Hospital [1]	Birmingham, Ala.	A. A. Walker	1,406	9,390	64	22	2	0 0	7/1	1-2	$50
Hillman Hospital *	Birmingham, Ala.	A. A. Walker	754	2,894	96	23	1	0 0	7/1	1	$50
Norwood Hospital *[2]	Birmingham, Ala.	E. B. Smith	1,076	5,244	41	9	1	0 0	7/1	1	$250
California Babies' and Children's Hospital [1]	Los Angeles	J. W. St. Geme	549	14,157	9	5	2	0 0	7/1	1	$100
Children's Hospital *	Los Angeles	J. J. Brenneman	2,112	35,046	137	114	1	8 0	7/1	1	$30
Los Angeles County Hospital *[1]	Los Angeles	M. Brooks	5,157	4,284	156	114	3	0 0	4/1, 7/1	3	$10
White Memorial Hospital *[1]	Los Angeles	M. B. Brooks	224	10,823	14	10	1	0 0	7/1	1-3	$80
Children's Hospital of the East Bay [1]	Oakland, Calif.	C. Sweet	1,194	21,577	24	20	2	1 0	7/1	1	$25
Children's Hospital *[1]	San Francisco	C. F. Gelston	724	8,003	24	..	0	1 0	7/1	1	$25
San Francisco Hospital *	San Francisco	.....	1,003	.....	...	..	0	1 0	7/1	1	....
Stanford University Hospitals *[1]	San Francisco	H. K. Faber	399	18,363	15	5	1	3 0	7/1	1	$25
University of California Hospital *[1]	San Francisco	F. S. Smyth	678	13,275	39	30	1	2 0	7/1	1	$25
Children's Hospital [1]	Denver	.....	3,008	.....	67	42	5	0 0	7/1	1-2	$50
Denver General Hospital *	Denver	W. Jones	1,021	.....	37	10	1	0 0	7/1	1	$50
New Haven Hospital *[1]	New Haven, Conn.	G. F. Powers	3,055	10,110	60	43	1	3 0	7/1	1+	*
Children's Hospital	Washington, D. C.	J. S. Wall	7,966	74,611	205	184	10	3 0	7/1	1-2	$10
Freedmen's Hospital *[1]	Washington, D. C.	A. D. Smith	286	4,233	36	36	1	0 0	10/1	1-3	$20
Gallinger Municipal Hospital *[1]	Washington, D. C.	W. M. Yater	1,002	4,959	89	44	1	1 0	7/1	1	....
Grady Hospital *	Atlanta, Ga.	W. A. Anderson and H. Roberts	1,325	26,562	105	43	2	4 0	7/1	1	$40
Henrietta Egleston Hospital for Children [1]	Atlanta, Ga.	M. H. Roberts	1,022	.....	54	34	3	0 0	1/1, 7/1	1	$40
University Hospital *[1]	Augusta, Ga.	C. M. Burpee	1,090	1,303	100	17	1	1 0	7/1	1-2	$35
Children's Memorial Hospital [1]	Chicago	C. A. Aldrich	4,324	58,535	114	67	4	13 0	1/1, 7/1	1	$50
Cook County Hospital *[1]	Chicago	M. L. Blatt	10,010	43,944	306	265	8	0 3	1/1, 7/1	1-2	$25
Mercy Hospital-Loyola University Clinics *	Chicago	R. A. Black	1,204	3,641	14	12	1	0 0	7/1	1	$50
Michael Reese Hospital *[1]	Chicago	P. Rosenblum	2,636	9,525	143	124	2	2 0	1/1, 7/1	1-2	$50
Presbyterian Hospital *[1]	Chicago	C. Grulee	1,104	8,690[a]	42	30	1	0 ..	7/1	1	$50
Provident Hospital	Chicago	E. W. Beasley	489	6,511	21	15	1	0 1	7/1	1-3	$50
Research and Educational Hospitals *[1]	Chicago	J. Hess	287	.....	29	29	1	0 0	7/1	1-2	$50
St. Vincent's Infant and Maternity Hospital	Chicago	M. L. Blatt	799	.....	6	6	2	0 0	1/1, 7/1	1	$50
University of Chicago Clinics *[1]	Chicago	F. W. Schlutz	1,169	11,582	25	22	1	3 2	7/1	1-3	None
Indianapolis City Hospital *	Indianapolis	C. J. Carter	726	9,535	84	46	1	0 0	7/1	1	$41.64
Indiana University Medical Center *[1]	Indianapolis	M. Winters	1,441	9,600	161	79	1	6 0	7/1	1-2	$66.33
University Hospitals *[1]	Iowa City	P. C. Jeans	1,193	2,999	70	39	1	2 0	7/1	1	$20.83
University of Kansas Hospitals *[1]	Kansas City, Kan.	F. C. Neff	979	3,174	56	34	1	0 0	7/1	1	$50
Louisville General Hospitals *[1]	Louisville	J. W. Bruce	1,899	9,311	86	25	2	3 0	7/1	1-3	$18.91
Charity Hospital *[1]	New Orleans	.....	2,724	26,384	199	96	6	6 0	7/1	1-2	$25
Touro Infirmary *	New Orleans	C. Bloom	420	11,633	26	18	1	0 0	7/1	1-3	$25
Baltimore City Hospitals *[1]	Baltimore	T. C. Goodwin	270	.....	342	342	1	0 0	7/1	1	$50
Johns Hopkins Hospitals *[1]	Baltimore	E. A. Park	1,132	34,982	104	80	1	4 0	7/1, 9/1	1-6	....
Union Memorial Hospital *[1]	Baltimore	D. C. W. Smith	422	.....	20	6	1	1 0	7/1	1-2	$12.50
University Hospital *[1]	Baltimore	C. L. Joslin	626	13,438	124	73	1	2 0	7/1	1-2	$25
Boston City Hospital *	Boston	M. J. English	4,548	11,127	190	69	1	0 0	Varies	1+	$83.33
Boston Floating Hospital [1]	Boston	E. W. Barron	990	11,893	29	27	1	3 1	Varies	1	$10
Children's Hospital	Boston	J. L. Gamble	1,520	24,385	46	35	2	0 0	1/1, 5/1, 9/1	1+	....
Massachusetts General Hospital *[1]	Boston	M. Burke	362	5,147	23	15	1	0 0	.....	...	....
University Hospital *[1]	Ann Arbor	C. F. McKhann	794	7,369	43	26	..	5 4	7/1	1-4	$25
Children's Hospital [1]	Detroit	J. L. Wilson	3,617	29,071	247	138	3	12 0	7/1	1	$25
Henry Ford Hospital *	Detroit	J. A. Johnston	1,109	11,450	20	8	3	0 0	7/1	2	$130
Minneapolis General Hospital *[1]	Minneapolis	A. V. Stoesser	1,254	8,097	60	42	0	0 3	1/1, 7/1	1-3	$25
University Hospitals *	Minneapolis	McGuerrie	1,674	7,406	121	97	0	0 5	7/1	1-3	$50
Mayo Foundation	Rochester, Minn.	H. F. Helmholz	(See page 1344)								
Children's Mercy Hospital [1]	Kansas City, Mo.	.....	2,056	17,077	94	63	1	0 0	7/1	1	$25
Kansas City General Hospital *	Kansas City, Mo.	E. H. Schorer	1,997	2,889	63	56	1	0 0	7/1	1-2	$50
Menorah-Providence Hospital	Kansas City, Mo.	F. S. Hogue	.....	.....	...	1	1	0 0	8/1	1	$63
Homer G. Phillips Hospital *[1]	St. Louis	W. A. Rupe	1,848	3,608	112	56	1	0 0	7/1	1-3	$75
St. Louis Children's Hospital [1]	St. Louis	A. F. Hartmann	3,762	[a]	119	73	1	10 1	7/1	1	None
St. Louis City Hospital *[1]	St. Louis	R. Cook	1,705[b]	5,142[b]	.....	..	1	1 0	7/1	1-2	$50
St. Mary's Group of Hospitals *	St. Louis	J. Zahorsky	1,230	8,815	31	13	0	1 0	7/1	3	$25
Jersey City Hospital *[1]	Jersey City, N. J.	C. DeFuto	1,141	2,374	67	16	1	1 0	7/1	1+	....
Albany Hospital *[1]	Albany, N. Y.	O. A. Faust	558	.....	29	24	1	1 0	7/1	2+	$25
Cumberland Hospital *	Brooklyn	T. B. Givan	1,505	7,745	55	43	1	1 0	1/1	1	$18
Jewish Hospital *[1]	Brooklyn	B. Kramer	558	14,217	34	22	1	2 0	7/1	1	$25
Kings County Hospital *[1]	Brooklyn	G. Brockway and L. Krahulik	2,888	6,675	.....	..	2	2 0	7/1	2	$18
Long Island College Hospital *[1]	Brooklyn	C. A. Weymuller	470	13,343	22	..	1	2 0	.....	2	$22.50
Norwegian Lutheran Deaconesses' Home and Hospital *[1]	Brooklyn	C. M. Fisher and J. A. Monfort	573	1,010	.....	..	1	0 0	7/1	1	$25
Children's Hospital [1]	Buffalo	D. P. Arnold	3,692	34,614	115	84	1	2 0	7/1	1	$40
Edward J. Meyer Memorial Hospital *[1]	Buffalo	F. J. Gustina	132	7,744	13	4	1	3 0	7/1	3	$59
Queens General Hospital *[1]	Jamaica, N. Y.	H. A. Reisman	2,550	4,749	109	92	1	1 0	7/1	1	$18
Babies Hospital [1]	New York City	McIntosh	3,232	35,087	96	58	1	11 0	7/1	1	$100
Bellevue Hospital *[1]	New York City	C. H. Smith	3,422	2,136	.....	...	1	0 0	7/1, 1/1	1	$83
Flower and Fifth Avenue Hospitals *[1]	New York City	R. A. Benson	300	3,589	10	4	1	0 0	7/1	1	$25
Harlem Hospital *[1]	New York City	M. Gleich	1,325[b]	14,725[b]	.....	..	1	0 0	7/1	1	$18
Lincoln Hospital *[1]	New York City	A. T. Martin	879	8,292	53	31	1	0 0	7/1	1+	....
Metropolitan Hospital *[1]	New York City	R. A. Benson	1,586	2,978	82	46	1	1 0	7/1	1-2	$18
Morrisania City Hospital *	New York City	L. H. Barenberg	796	4,979	40	22	1	1 0	1/1, 7/1	1	$18
Mount Sinai Hospital *[1]	New York City	.....	...	.....	...	..	1	1 0	1/1, 7/1	1	$50
New York City Hospital *	New York City	C. S. Boyd	841	4,070	39	31	1	0 0	7/1	1	$50
New York Foundling Hospital	New York City	.....	869	.....	33	26	2	0 0	1/1, 7/1	1	$25
New York Hospital *[1]	New York City	S. Z. Levine	1,251	32,036	103	90	1	5 0	7/1, 7/1	1-4	$25
New York Post-Graduate Medical School and Hospital *[1]	New York City	A. G. DeSanctis	1,094	19,074	24	16	3	13 0	1/1, 7/1	1-2	....

Numerical and other references will be found on page 1344.

16. PEDIATRICS—(Continued)

		Chief of Service	Inpatients Treated*	Outpatient Visits	Deaths	Autopsies	Residents	Assistant Residents	Fellows	Service Begins	Length of Service (Years)	Beginning Stipend
St. Luke's Hospital *[1]	New York City	F. E. Johnson	406	8,735	11	9	1	1	0	1/1, 7/1	1-2	$25
Strong Memorial and Rochester Municipal Hospitals *[1]	Rochester, N. Y.	S. W. Clausen	1,408	14,699	64	50	2	2	1	7/1	1-4	$41.66
Sea View Hospital [1]	Staten Island, N. Y.	B. Schick	441	.....	21	5	4	0	0	1/1, 7/1	1	$100
Syracuse Memorial Hospital *[1]	Syracuse, N. Y.	B. C. Doust	1,266	.....	25	17	1	0	0	7/1	1	$50
Grasslands Hospital *	Valhalla, N. Y.	F. D. Barnes	435	1,359	13	12	1	1	0	1/1, 7/1	1	$75
Duke Hospital *[1]	Durham, N. C.	W. C. Davison	757	9,002	81	41	..	3	0	7/1	1	$41
Watts Hospital *[7]	Durham, N. C.	.....	731	1,595	.....	..	0	1	0	7/1	1	$25
North Carolina Baptist Hospital *	Winston-Salem, N. C.	L. J. Butler	.....	.....	.....	..	..	2	..	1/1,7/1	1	...
Trinity Hospital *[1,18]	Minot, N. D.	R. Dyson	676	3,480	10	10	1	0	0	.....	1	....
Children's Hospital	Akron, O.	R. T. Rowe	1,540	8,911	81	43	1	0	0	7/1	1	....
Children's Hospital [1]	Cincinnati	A. A. Weech	5,042	24,351	332	94	1	15	0	7/1	1-2	$25
Cincinnati General Hospital *[1]	Cincinnati	A. A. Weech	1,307	9,847	132	76	6	10	0	7/1	1-2	*
University Hospitals *[1]	Cleveland	H. J. Gerstenberger	1,231	23,558	58	35	1	2	0	7/1	2	$25
Children's Hospital [1]	Columbus, O.	E. H. Baxter	2,587	77,839	126	64	1	2	0	7/1	1-2	$30
University Hospitals *	Oklahoma City	C. H. Hall	708	4,637	89	46	1	0	0	7/1	1	$50
University of Oregon Medical School Hospitals and Clinics *[1]	Portland, Ore.	J. B. Bilderback	3,043	7,228	59	47	1	0	0	7/1	1	$40
Babies' Hospital [1]	Philadelphia	L. E. McClure	291	33,558	12	4	2	0	0	7/1	1	$83.33
Children's Hospital [1]	Philadelphia	J. Stokes Jr.	2,180	49,646	67	12	1	2	0	7/1	1	....
Children's Hospital of the Mary J. Drexel Home [1]	Philadelphia	.....	844	12,565	18	9	1	0	0	7/1	1	$100
Hahnemann Hospital *	Philadelphia	C. S. Raue	883	4,821	42	22	1	0	0	9/1	1	$50
Hospital of the University of Pennsylvania *[1]	Philadelphia	J. Stokes Jr.	1,402	4,356	18	9	1	0	0	7/1	1	None
Jewish Hospital *[1]	Philadelphia	M. Solis-Cohen	320	965	19	17	1	0	0	6/15	1-2	None
Philadelphia General Hospital *[1]	Philadelphia	.....	1,890	.....	52	..	1	0	0	8/1	1-2	$50
St. Christopher's Hospital for Children [1]	Philadelphia	F. Krauss	1,941	55,262	28	14	1	4	0	9/1	1	$50
Temple University Hospital *[1]	Philadelphia	.....	350	5,716	24	15	2	0	0	7/1	3	$40
Children's Hospital [1]	Pittsburgh	H. T. Price	2,139	5,783	141	81	1	3	0	9/1	1	$40
Roper Hospital *[1]	Charleston, S. C.	M. W. Beach	734	10,870	81	39	1	1	1	7/1	1-2	....
T. C. Thompson Children's Hospital [1]	Chattanooga, Tenn.	J. W. Hocker	727	17,560	106	19	1	2	0	7/1	1-2	$50
John Gaston Hospital *	Memphis, Tenn.	A. G. Jacobs	1,517	6,518	98	22	1	0	0	7/1	1	$65
George W. Hubbard Hospital of Meharry Medical College *	Nashville, Tenn.	J. W. Jones	401	3,116	33	11	1	0	0	7/1	1-2	$75
Vanderbilt University Hospital *	Nashville, Tenn.	H. R. Casparis	631	9,833	76	42	1	2	0	7/1	1	$35
Children's Memorial Medical Center [1,20]	Dallas, Tex.	J. G. Young and H. L. Moore	1,770	29,997	83	6	1	5	0	1/1, 7/1	1-3	$25
John Sealy Hospital *[1]	Galveston, Tex.	B. Reading	714	7,804	.....	..	1	2	0	7/1	1-3	$25
Jefferson Davis Hospital *	Houston, Tex.	R. Cohen	1,236	9,451	120	41	1	0	0	7/1	1	$50
University of Virginia Hospital *	Charlottesville, Va.	L. T. Royster	1,464	5,237	88	25	1	1	0	7/1	1	$50
Medical College of Virginia, Hospital Division *[1]	Richmond	L. E. Sutton	1,716	.....	110	30	0	2	0	7/1	1	...
Children's Orthopedic Hospital [1]	Seattle	J. I. Durand	308	2,583	21	15	1	0	0	7/1	1	....
State of Wisconsin General Hospital *[1]	Madison	J. E. Gonce	503	2,096	40	26	1	0	0	7/1	1	$25
Milwaukee Children's Hospital [1,16]	Milwaukee	F. R. Janney	3,625	31,447	73	38	2	5	0	7/1	1	$30
Milwaukee County Hospital *[1]	Wauwatosa, Wis.	R. P. Schowalter	1,751	5,613	10	4	1	0	0	7/1,7/15	1	$50

17. PHYSICAL THERAPY

Stanford University Hospitals *[1,7]	San Francisco	W. H. Northway	2,751	5,073	...	..	1	0	0	7/1	1	$25
Michael Reese Hospital *[1]	Chicago	C. O. Molander	450	5,801	...	..	1	0	0	7/1	1	...
Mayo Foundation	Rochester, Minn.	F. H. Krusen	(See page 1344)									

18. PLASTIC SURGERY

Mayo Foundation	Rochester, Minn.	G. B. New	(See page 1344)									
Kings County Hospital *	Brooklyn	W. A. Coakley	925[b]	1,631	...	..	1	1	0	7/1	2	$18
Presbyterian Hospital *[1]	New York City	A. O. Whipple	.....	.....	...	..	1	1	0	7/1	1-2	...
Graduate Hospital of the University of Pennsylvania *	Philadelphia	R. H. Ivy	236	740	2	1	1	0	0	7/1	1	None

19. PSYCHIATRY

Revision of list is now taking place in collaboration with the American Board of Psychiatry

Compton Sanitarium	Compton, Calif.	G. Myers	573	.....	1	..	1	0	0	Varies	..	$300
Mount Zion Hospital *	San Francisco	J. Kasanin	.....	1,355	...	..	0	1	1	7/1	1	$50
Stanford University Hospitals *[1,19]	San Francisco	G. S. Johnson	420	9,653	5	4	1	2	0	7/1	1+	$25
University of California Hospital *[1]	San Francisco	J. W. Twitchell	140	3,253	...	..	1	0	0	7/1	1	$25
Mendocino State Hospital [1]	Talmage, Calif.	R. B. Toller	3,707	.....	137	36	..	..	..	.....	..	...
Colorado Psychopathic Hospital	Denver	F. G. Ebaugh	897	7,156	22	14	2	0	6	9/1	1-3	$100
Colorado State Hospital	Pueblo, Colo.	I. Schatz	807	.....	284	45	7	0	0	Varies	1+	...
Neuro-Psychiatric Institute of the Hartford Retreat [1]	Hartford, Conn.	C. C. Burlingame	913	.....	12	1	0	0	5	Varies	1¼	$225[c]
Connecticut State Hospital [1]	Middletown, Conn.	R. L. Leak	3,805	14	285	62	3	0	0	Varies	1+	$75
New Haven Hospital *[1]	New Haven, Conn.	E. Kahn	355	.....	5	2	1	7	0	7/1	1+	*
Norwich State Hospital	Norwich, Conn.	L. H. Cohen	3,125	.....	148	42	6	0	0	Varies	1	$50
Delaware State Hospital	Farmhurst, Del.	M. A. Tarumianz	1,247	2,121	107	34	..	..	..	.....	..	...
Gallinger Municipal Hospital *[1]	Washington, D. C.	J. L. Gilbert	3,481	.....	126	58	0	1	0	7/1	1	....
St. Elizabeth's Hospital [1]	Washington, D. C.	R. H. Guthrie	8,448	100	...	..	13	0	0	7/1,10/1	1	$166.66
Chicago State Hospital	Chicago	.....	6,035	1,075	586	125	5	0	0	1/1,7/1	1	$50
Cook County Hospital *[1]	Chicago	V. G. Ursc	7,046	.....	130	14	6	0	0	7/1,1/1	1-3	$25
Illinois Neuropsychiatric Institute [19]	Chicago	F. J. Gerty	144	.....	3	1	0	0	3	7/1	3	$100
Michael Reese Hospital *[1,8,19]	Chicago	R. R. Grinker	344	3,130	...	..	2	0	0	7/1	2	$50
St. Luke's Hospital *[1]	Chicago	R. P. Mackay	303	1,120	3	1	1	0	0	7/1	1-3	$25
University of Chicago Clinics *[1]	Chicago	D. B. Slight	256	5,767	...	..	1	1	0	7/1	1-3	None
Elgin State Hospital [1]	Elgin, Ill.	E. Lieberl	6,797	1,642	373	144	2	0	0	Varies	1-2	$52.50
Manteno State Hospital	Manteno, Ill.	W. H. Baer	7,712	.....	373	109	6	0	0	7/1	1+	$52.50
Peoria State Hospital	Peoria, Ill.	.....	3,479	.....	335	28	2	0	0	7/1	1	$52.50
Central State Hospital	Indianapolis	M. A. Bahr	2,733	.....	189	22	4	0	0	Varies	1+	$157
Indianapolis City Hospital *[1,19]	Indianapolis	L. D. Carter	737	1,762	54	13	1	0	0	7/1	1	$41.64
Logansport State Hospital [1]	Logansport, Ind.	C. L. Williams	2,541	.....	187	37	5	0	0	7/1	2-3	$150
Iowa State Psychopathic Hospital [1]	Iowa City	W. R. Miller	416	1,507	0	0	2	2	0	7/1	1	$63.75
Menninger Sanitarium [1]	Topeka, Kan.	W. C. Menninger	151	160	1	..	4	0	0	1/1,7/1	1	$120
United States Public Health Service Hospital	Lexington, Ky.	.....	.....	.....	...	..	..	..	..	.....	..	...
Johns Hopkins Hospital *[1]	Baltimore	J. C. Whitehorn	322	4,128	5	2	1	3	0	7/1,9/1	1-6	...
Spring Grove State Hospital	Catonsville, Md.	S. W. Weltmer	2,666	.....	138	91	2	1	0	Varies	1	...
Springfield State Hospital [1]	Sykesville, Md.	K. B. Jones	3,552	.....	176	62	4	0	0	7/1	1	$125
Sheppard and Enoch Pratt Hospital [1]	Towson, Md.	R. M. Chapman	685	.....	9	4	8	0	0	1/1,7/1	1-3	$100
McLean Hospital [1]	Belmont, Mass.	K. J. Tillotson	420	.....	15	5	4	0	0	Varies	1-2	$75

Numerical and other references will be found on page 1344.

19. PSYCHIATRY—(Continued)

Revision of list is now taking place in collaboration with the American Board of Psychiatry

		Chief of Service	Inpatients Treated *	Outpatient Visits	Deaths	Autopsies	Residents	Assistant Residents Fellows	Service Begins	Length of Service (Years)	Beginning Stipend
Boston Psychopathic Hospital [1]	Boston	C. M. Campbell	2,043	7,312	16	5	8	0 0	9/1	1+	$75
Boston State Hospital [1]	Boston	H. F. Norton	3,478	2,410	300	134	6	0 0	Varies	1	None
Massachusetts General Hospital *	Boston	S. Cobb	113	.....	2	1	1	1 0	.....	..	...
Foxboro State Hospital	Foxboro, Mass.	G. B. Pearson	1,621	995	111	41	..	.. ..	.....	..	...
Gardner State Hospital [1]	Gardner, Mass.	C. E. Thompson	1,761	78	78	29	0	8 0	Varies	1+	$150
Danvers State Hospital [1]	Hathorne, Mass.	L. Maletz	3,100	2,687	241	104	2	0 0	Varies	1	$45
Medfield State Hospital	Medfield, Mass.	E. K. Holt	2,083	.....	98	21	..	.. ..	.....	1-2	$150
Northampton State Hospital	Northampton, Mass.	G. C. Randall	2,709	1,289	197	58	2	0 0	Varies	1+	...
Grafton State Hospital [1]	North Grafton, Mass.	H. L. Paine	1,868	1,724	87	35	2	0 0	Varies	1	None
Taunton State Hospital [1]	Taunton, Mass.	R. M. Chambers	2,421	3,036	242	122	4	0 0	7/1	1-2	$150
Westboro State Hospital	Westboro, Mass.	W. E. Lang	2,199	1,268	136	56	3	0 0	Varies	1-2	$150
Worcester State Hospital [1]	Worcester, Mass.	W. Malamud	3,394	381	225	114	5	0 0	1/1,7/1	1	None
University Hospital *[1]	Ann Arbor, Mich.	R. W. Waggoner	275	3,446	1	1	2	2 0	7/1	1-4	$25
City of Detroit Receiving Hospital *[1]	Detroit	J. M. Stanton	5,748	1,856	193	28	1	1 0	7/15	1-2	$108.33
Henry Ford Hospital *	Detroit	T. J. Heldt	1,145	8,010	44	18	1	0 0	7/1	1-3	$130
Eloise Hospital and Infirmary *[1]	Eloise, Mich.		4,528	.....	199	53	7	0 0	7/1	2	$178
Kalamazoo State Hospital	Kalamazoo, Mich.	R. A. Morter	3,512	1,000	232	43	3	0 0	Varies	2	$150
Pontiac State Hospital [1]	Pontiac, Mich.	E. J. Rennell	2,116	475	144	74	..	.. ..	Varies	1-3	$250
Traverse City State Hospital [1]	Traverse City, Mich.	R. P. Sheets	3,000	764	140	26	3	0 0	Varies	3	....
Ypsilanti State Hospital [1]	Ypsilanti, Mich.	O. R. Yoder	2,466	967	200	61	5	0 0	Varies	1-3	$165
Minneapolis General Hospital *[1,19]	Minneapolis	J. C. Michael	1,462	4,800	162	43	0	0 1	1/1,7/1	1-3	$25
University Hospitals *[19]	Minneapolis	J. C. McKinley	793	3,637	45	24	0	0 3	7/1	1-3	$50
Mayo Foundation	Rochester, Minn.	H. W. Woltman	(See page 1344)								
St. Peter State Hospital	St. Peter, Minn.	G. H. Freeman	2,782	.....	210	48	1	0 0	Varies	1-2	$75
State Hospital No. 1	Fulton, Mo.	J. R. Bunch	2,514	.....	213	47	5	0 0	7/1	1-3	$100
Kansas City General Hospital *	Kansas City, Mo.	E. T. Gibson	1,085	1,436	39	28	1	0 0	7/1	1-3	$50
State Hospital No. 2	St. Joseph, Mo.	J. C. Carmichael	2,754	60	226	58	4	0 0	Varies	1	$75
City Sanitarium	St. Louis	L. H. Kahler	3,878	.....	169	67	5	0 0	7/1	1	$150
Homer G. Phillips Hospital *	St. Louis	Hyman H. Fingert	554	960	32	..	1	1 0	7/1	1-2	$100
St. Louis City Hospital *[1]	St. Louis	D. Rioch	.....	.....	...	..	2	4 0	7/1	1-3	$50
Hastings State Hospital	Ingleside, Neb.	J. C. Nielsen	1,761	.....	114	64	2	0 0	Varies	1-2	$140
Norfolk State Hospital	Norfolk, Neb.	G. E. Charlton and W. C. Brinegar	1,303	160	75	42	4	0 0	Varies	1	$120
Bishop Clarkson Memorial Hospital *	Omaha	A. E. Bennett	318	357	8	5	1	0 0	7/1	1	$50
New Hampshire State Hospital	Concord, N. H.	C. D. Dolloff	2,895	1,231	226	59	1	0 0	Varies	1	$75
New Jersey State Hospital [1]	Greystone Park, N. J.	M. A. Curry	7,500	.....	510	116	13	0 0	Varies	1	$160
New Jersey State Hospital [1]	Marlboro, N. J.	J. B. Gordon	3,277	977	265	152	1	0 0	7/1	1	$50
New Jersey State Hospital	Trenton, N. J.	R. G. Stone	3,871	8,216	297	51	2	0 0	7/1	1	....
Albany Hospital *[1,19]	Albany, N. Y.	D. E. Cameron	893	.....	46	32	1	1 0	7/1	2+	$25
Hillside Hospital	Bellerose, N. Y.	L. Wender	177	.....	...	..	3	0 0	1/1, 7/1, 10/1	1	$100
Binghamton State Hospital	Binghamton, N. Y.	W. C. Garvin	3,316	383	255	83	4	0 0	Varies	1	$150
Pilgrim State Hospital	Brentwood, N. Y.		.....	.....	...	..	..	.. ..	.....	..	...
Buffalo State Hospital [1]	Buffalo	C. Fletcher	3,173	1,757	184	28	3	0 0	Varies	1+	$150
Edward J. Meyer Memorial Hospital *[1,19]	Buffalo	A. L. Ulrich	1,930	2,324	167	49	..	.. ..	7/1	3	$59*
Central Islip State Hospital [1]	Central Islip, N. Y.	J. Corcoran	9,575	3,347	529	183	12	0 0	1/1, 7/1	1-3	$150
Gowanda State Homeopathic Hospital	Helmuth, N. Y.	E. V. Gray	2,991	.....	178	66	..	.. ..	.....	..	....
Kings Park State Hospital	Kings Park, N. Y.	J. H. Shuffleton	7,091	2,183	376	128	..	.. ..	.....	..	....
Marcy State Hospital	Marcy, N. Y.	W. W. Wright	3,514	1,941	297	16	5	0 0	Varies	1+	$150
Middletown State Homeopathic Hospital [1]	Middletown, N. Y.	W. A. Schmitz	3,743	1,048	177	76	2	2 0	Varies	1	$150
Bellevue Hospital *[1]	New York City	C. N. Colbert	31,732	.....	...	12	0	7	1/1, 7/1	1	$100
New York Hospital *[1]	New York City	O. Diethelm	342	6,196	1	1	1	9 0	7/1	1-5	$25
New York State Psychiatric Institute and Hospital [1]	New York City	N. D. C. Lewis	431	1,617	0	0	8	0 0	1/1, 7/1	1-2	$25
U. S. Marine Hospital [1]	New York City	S. D. Vestermark	93	91	...	..	2	0 0	7/1	1	$150
St. Lawrence State Hospital [1]	Ogdensburg, N. Y.	A. Pritchard	2,051	552	141	57	3	0 0	Varies	1+	$150
Rockland State Hospital	Orangeburg, N. Y.	R. E. Blaisdell	8,619	4,412	509	181	6	0 0	Varies	1+	$150
Hudson River State Hospital [1]	Poughkeepsie, N. Y.	J. R. Ross	5,274	8,397	334	95	3	0 0	Varies	1+	$150
Creedmoor State Hospital	Queens Village, N. Y.	G. W. Mills	5,593	4,066	405	156	2	0 0	Varies	2	$150
Rochester State Hospital	Rochester, N. Y.	J. L. Van De Mark	3,976	86	300	71	2	0 0	Varies	1+	$150
Strong Memorial and Rochester Municipal Hospitals *	Rochester, N. Y.	R. C. A. Jaenike	464	1,071	...	..	1	0 0	7/1	1	$125
Utica State Hospital [1]	Utica, N. Y.	W. E. Merriman	2,307	1,028	224	31	3	0 0	7/1	1	$125
Grasslands Hospital *	Valhalla, N. Y.	T. P. Brennan	1,135	654	46	31	3	3 0	1/1, 7/1	1-2	$75
New York Hospital-Westchester Division [1]	White Plains, N. Y.	C. O. Cheney	764	.....	10	4	..	8 0	1/1, 7/1	1-3	$125
Harlem Valley State Hospital	Wingdale, N. Y.	J. R. Ross	4,937	2,098	230	40	3	0 0	Varies	1+	$150
Duke Hospital *[1]	Durham, N. C.	R. S. Lyman	266	1,546	...	..	1	2 0	7/1	1-2	$41
Cincinnati General Hospital *[1]	Cincinnati	J. Romano	1,208	2,083	21	9	1	2 0	7/1	1-2	*
Longview State Hospital	Cincinnati	A. Cimbura	3,357	754	186	75	2	2 0	7/1	2	$75
City Hospital *[1]	Cleveland	L. J. Karnosh	810	2,126	51	18	1	2 0	7/1	1-3	$40
Columbus State Hospital	Columbus, O.	J. F. Bateman	3,100	3,078	174	100	1	1 0	7/1	1	$100
Massillon State Hospital	Massillon, O.	A. G. Hyde	4,268	1,342	222	51	4	0 0	1/1, 7/1	1-2	$50
Harding Sanitarium	Worthington, O.	G. T. Harding	283	.....	7	0	1	0 0	8/1	1	$150
Oregon State Hospital	Salem, Ore.	D. Richmondson	3,880	.....	303	112	2	0 0	7/1	1	$100
Danville State Hospital	Danville, Pa.	L. R. Chamberlain	2,555	3,006	143	29	1	0 0	Varies	1	....
Harrisburg State Hospital [1]	Harrisburg, Pa.	H. K. Petry	2,561	304	162	44	2	0 0	9/1	1+	$125
Norristown State Hospital	Norristown, Pa.	A. P. Noyes	4,535	1,190	237	68	..	.. ..	.....	..	...
Friends Hospital [1]	Philadelphia	T. L. Dehne	289	.....	16	5	2	0 0	7/1	1-2	$100
Institute of the Pennsylvania Hospital [1]	Philadelphia	L. H. Smith	316	3,215	1	0	0	0 4	7/1	1	Varies
Pennsylvania Hospital, Department for Mental and Nervous Diseases	Philadelphia	L. H. Smith	461	1,721	13	4	0	0 6	7/1	1	Varies
Philadelphia General Hospital *[1,19]	Philadelphia		4,641	.....	695	..	1	0 0	8/1	1-2	$50
Temple University Hospital *	Philadelphia		215	1,307	...	..	1	0 0	7/1	3	$40
St. Francis Hospital *	Pittsburgh	G. J. Wright and H. L. Mitchell	3,018	397	113	23	3	0 0	9/1	1-3	$65
Warren State Hospital [1]	Warren, Pa.	R. H. Israel	3,285	534	217	58	2	2 0	Varies	1-3	$125
State Hospital for Mental Diseases [1]	Howard, R. I.	C. P. Fitzpatrick	3,456	411	267	86	4	0 0	7/1	1-2	$75
Butler Hospital [1]	Providence, R. I.	A. H. Ruggles	342	362	18	6	3	0 0	1/1, 7/1	1	$50
Charles V. Chapin Hospital	Providence, R. I.	H. E. Kiene	733	933	37	..	1	0 0	1/1	Varies	$75
U. S. Public Health Service Hospital	Fort Worth, Tex.	G. A. Kempf	.....	.....	...	..	3	0 0	7/1	1-2	$156.63
Galveston State Psychopathic Hospital [1]	Galveston, Tex.	T. H. Harris	511	.....	2	1	1	1 0	7/1	1-3	$100
John Sealy Hospital *[1]	Galveston, Tex.	T. H. Harris	908	284	...	..	1	2 0	7/1	1-3	$25
University of Virginia Hospital *[1,19]	Charlottesville, Va.	D. C. Wilson	467	1,291	7	3	1	1 0	7/1	1	$25
Eastern State Hospital	Williamsburg, Va.	G. W. Brown	529	.....	143	62	4	0 0	7/1	1-2	$50
Western State Hospital [1]	Ft. Steilacoom, Wash.	R. H. Rea	3,395	.....	253	168	2	0 0	7/1	1-3	$150
Eastern State Hospital [1]	Medical Lake, Wash.	M. W. Conway	2,329	103	172	88	3	0 0	7/1	1	$100
Northern State Hospital	Sedro Woolley, Wash.	J. W. Doughty	2,556	.....	172	95	2	0 0	Varies	1-2	$100
State of Wisconsin General Hospital *[1,19]	Madison, Wis.	W. F. Lorenz	1,224	229	30	22	1	0 1	7/1	1	$25
Milwaukee County Hospital for Mental Diseases *[1]	Wauwatosa, Wis.	M. Kasak	1,515	1,187	32	9	4	0 0	1/1, 7/1	3	$50
Milwaukee Sanitarium [1]	Wauwatosa, Wis.	L. H. Ziegler	479	.....	10	3	2	0 0	7/1	1-3	$50

Numerical and other references will be found on page 1344.

20. RADIOLOGY

The following services are approved by the Council and the American Board of Radiology (See footnotes 11, 12 and 13)

		Chief of Service	Type of Training [14]	Roentgenographic Examinations	X-Ray Treatments	Radium Treatments	Autopsy Percentage	Residents	Assistant Residents	Fellows	Service Begins	Length of Service (Years)	Beginning Stipend
Los Angeles County Hospital [a1,13]	Los Angeles	R. A. Carter	Rad.	61,862	10,378	11,006	60	3	0	0	7/1	3	$75
St. Vincent's Hospital [a12]	Los Angeles	K. S. Davis	Rad.	8,390	1,380	200	47	1	0	0	7/1	1-2	....
White Memorial Hospital [a13]	Los Angeles	W. L. Stilson	Rad.	7,533	6,540		50	2	0	0	7/1	1-3	$80
San Francisco Hospital [a1,12]	San Francisco	L. H. Garland and L. Bryan	Rad.	62,104	4,000	40	47	4	0	0	7/1	2	$50
Stanford University Hospital [a1,13]	San Francisco	R. R. Newell	Rad.	13,609	7,679	213	50	1	3	0	7/1	1	$25
University of California Hospital [a1,13]	San Francisco	R. S. Stone	Rad.	11,396	9,747	327	88	1	3	0	7/1	3	$25
Colorado General Hospital [a12]	Denver	E. A. Schmidt	Rad.	8,035	3,572	35	91	2	0	0	7/1	2-3	$40
Hartford Hospital [a13]	Hartford, Conn.	D. J. Roberts	Rad.	12,917	6,621	94	52	1	0	1	1/1, 7/1	2-3	....
New Haven Hospital [a1,13]	New Haven, Conn.	H. Wilson	Rad.	22,538	3,835	71	57	1	2	..	7/1	1	None
Garfield Memorial Hospital [a12]	Washington, D. C.	E. A. Merritt	Rad.	6,611	13,002	147	66	1	0	1	7/1	1	....
Georgetown University Hospital [a12]	Washington, D. C.	F. O. Coe	Rad.	6,230	2,987	27	53	0	0	2	7/1	2	....
Sibley Memorial Hospital [a13]	Washington, D. C.	J. E. Elward	Rad.	2,766	86	34	50	1	0	0	7/1	1-3	....
Veterans Administration Facility [12]	Washington, D. C.	W. P. Hynes	Rad.	8,097	1,652	5	46	1	0	0	Varies	1+	....
Walter Reed General Hospital [a7,13]	Washington, D. C.	W. L. Thompson	Rad.	22,873	5,388	319	82	1	0	1	Varies	2-3	....
James M. Jackson Memorial Hospital [a12]	Miami, Fla.	C. P. Truog	Rad.	16,385	2,867	27	26	1	0	0	7/1	3	$100
Grady Hospital [a11]	Atlanta, Ga.	P. Elkin	Roent.	22,177	618	.....	49	1	0	0	7/1	1	$30
Piedmont Hospital [a13]	Atlanta, Ga.	G. Hrdlicka	Rad.	2,232	1,145	15	51	0	2	0	7/1	1	$50
Cook County Hospital [a1,13]	Chicago		Rad.	91,368	26,816	153	23	4	0	2	1/1, 7/1	1-3	....
Michael Reese Hospital [a1,13]	Chicago	R. A. Arens	Rad.	25,678	8,496	3,623	64	1	1	2	1/1, 7/1	3	$25
Mount Sinai Hospital [a1,12]	Chicago	G. Danelius	Roent.	7,492	2,397	25	47	1	0	0	1/1	3	$25
Passavant Memorial Hospital [a1,13]	Chicago	J. T. Case	Rad.	3,944	1,613	.....	75	0	0	2	1/1, 7/1	3	....
Presbyterian Hospital [a12]	Chicago	F. H. Squire	Rad.	24,302	4,822	46	58	0	0	2	Varies	3	$50
Provident Hospital [a1,12]	Chicago	R. W. Anthony	Rad.	4,926	1,001	10	49	1	0	0	7/1	1-3	$50
Research and Educational Hospitals [a13]	Chicago	A. Hartung	Rad.	8,279	1,843	87	91	3	0	0	7/1	1-3	$50
St. Luke's Hospital [a13]	Chicago	E. L. Jenkinson	Rad.	15,401	4,885	22	60	0	0	4	7/1	1-3	$75
University of Chicago Clinics [a13]	Chicago	P. C. Hodges	Rad.	19,306	9,308	73	81	1	2	3	1/1, 7/1	3	$25
Evanston Hospital [a13]	Evanston, Ill.	E. R. Crowder and A. E. Williams	Rad.	14,290	983	20	80	0	1	0	7/1	3	$83
Veterans Administration Facility [13]	Hines, Ill.	C. W. McClanahan	Rad.	46,303	21,444	1,888	40	(Training open to medical officers, U. S. V. B.)					
St. Margaret's Hospital [a12]	Hammond, Ind.	C. W. Rauschenbach	Roent.	357	466	0	19	1	0	0	7/1	1+	$100
Indiana University Medical Center [a1,13]	Indianapolis	A. P. Echternacht	Rad.	15,671	8,241	117	50	0	0	2	7/1	3	$63
Methodist Hospital [a13]	Indianapolis	H. Ochsner	Rad.	12,567	5,851	49	37	2	0	0	7/1	2-3	$50
University Hospitals [a1,13]	Iowa City	H. D. Kerr	Rad.	32,976	12,260	80	58	2	4	0	7/1	3	$20-83
University of Kansas Hospital [a1,13]	Kansas City, Kan.	G. M. Tice	Rad.	22,446	5,139	178	72	1	0	0	7/1	3	$50
Charity Hospital [a1,13]	New Orleans	L. J. Menville	Rad.	69,246	25,150	318	43	3	3	0	7/1	1-3	$25
Southern Baptist Hospital [a13]	New Orleans	E. W. Magruder	Rad.	7,737	3,717	104	30	1	1	0	7/1	2-4	$100
Touro Infirmary [a13]	New Orleans	M. D. Teltelbaum	Roent.	38,499	.....	.....	69	1	0	0	7/1	1	....
Shreveport Charity Hospital [a13]	Shreveport, La.	R. W. Cooper	Rad.	7,549	7,155	104	48	2	0	0	6/1	2-3	$60
Johns Hopkins Hospital [a13]	Baltimore	J. W. Pierson	Rad.	118,642	8,744	250	74	1	1	0	7/1, 9/1	1-3	....
University Hospital [a13]	Baltimore	W. L. Kilby	Rad.	17,273	6,836	302	48	1	1	1	7/1	3	$25
Beth Israel Hospital [a13]	Boston	S. A. Sybinn	Rad.	12,752	3,251	13	55	1	0	2	7/1	3	$33.40
Boston City Hospital [a13]	Boston	P. F. Butler	Rad.	65,629	5,742	59	70	1	3	0	Varies	1+	$83.33
Children's Hospital [11]	Boston	E. B. D. Neuhauser	Roent.	14,407	751	.....	80	1	0	0	7/1	1+	....
Lahey Clinic [7,13]	Boston	H. F. Hare	Rad.	50,000	6,000	50	..	0	0	1	7/1	1-3	$100[c]
Massachusetts General Hospital [a13]	Boston	A. S. Hampton	Rad.	30,967	8,333	68	62	1	2	0	7/1	3	....
Massachusetts Memorial Hospital [a1,13]	Boston	G. Levene	Rad.	9,506	2,279	41	76	2	1	0	Varies	3	$42
New England Deaconess Hospital [12]	Boston	J. H. Marks	Rad.	7,084	5,051	252	58	1	0	0	7/1	1-3	....
Peter Bent Brigham Hospital [a13]	Boston	M. C. Sosman	Rad.	15,285	3,715	282	68	1	1	0	7/1	3	$42
University Hospital [a1,13]	Ann Arbor, Mich.	F. J. Hodges	Rad.	34,887	13,530	232	66	3	3	0	7/1	3	$25
City of Detroit Receiving Hospital [a1,12]	Detroit	C. J. Keuning	Roent.	30,649	.....	.....	34	1	1	0	7/15	2	$108
Grace Hospital [a13]	Detroit	R. H. Stevens	Rad.	13,872	5,098	25	34	2	0	0	1/1, 4/1	3	$100
Harper Hospital [a13]	Detroit	L. Reynolds	Rad.	16,000	14,083	340	38	1	1	0	7/1	1	$25
Henry Ford Hospital [a13]	Detroit	H. P. Doub	Rad.	28,874	3,400	177	51	1	1	0	7/1	3	$130
Hurley Hospital [a13]	Flint, Mich.	M. W. Clift	Rad.	12,355	3,672	16	29	1	0	0	7/1	1-3	....
Mayo Foundation [13]	Rochester, Minn.	B. R. Kirklin	Rad.	140,201	18,925	3,000	78	8	0	8	Quart.	3	$83
University Hospitals [a13]	Minneapolis	L. Rigler	Rad.	32,272	12,209	597	72	0	0	4	7/1	1-3	$50
St. Joseph Hospital [a13]	Kansas City, Mo.	C. E. Virden	Rad.	5,093	2,084	109	62	1	0	0	7/1	1-3	....
Barnes Hospital [a13]	St. Louis	S. Moore	Rad.	52,011	1,058	116	60	1	1	0	7/1	1-3	$25
Homer G. Phillips Hospital [a13]	St. Louis	E. W. Tapp	Rad.	13,930	1,144	12	35	1	0	0	7/1	1-3	$75
St. Louis City Hospital [a1,13]	St. Louis	L. R. Sante	Rad.	36,801	1,784	400	58	1	2	0	7/1	1-3	....
St. Luke's Hospital [a13]	St. Louis	O. C. Zink	Rad.	4,122	844	183	38	1	0	0	7/1	3	$75
Creighton Memorial St. Joseph Hosp. [a13]	Omaha	J. F. Kelly	Rad.	2,234	2,674	94	26	1	0	0	7/1	1-3	$75
University of Nebraska Hospital [a13]	Omaha	H. B. Hunt	Rad.	4,978	3,514	220	84	1	0	1	1/1, 7/1	1	$50
Mary Hitchcock Memorial Hospital [a12]	Hanover, N. H.	I. S. Sydmore	Rad.	6,181	2,659	36	84	1	0	0	7/1	2	$42
Newark Beth Israel Hospital [a1,11]	Newark, N. J.	N. J. Furst	Rad.	7,535	2,440	148	44	1	0	0	7/1	2	$25
Brooklyn Hospital [a12]	Brooklyn	J. Pepe	Rad.	5,500	1,942	83	49	1	0	0	Varies	1-2	....
Jewish Hospital [a1,11]	Brooklyn	M. G. Wasch	Rad.	17,000	3,641	14	46	1	1	0	7/1, 1/1	1½	$25
Kings County Hospital [a] (D. R.[12], Ther. Rad.[11])	Brooklyn	R. A. Rendich	D. R.	69,315	.....	.....	17	1	1	0	7/1	2-3	$18
			Ther.Rad.	.....	19,633	137	17	1	0	0	9/1	1	$18
		A. L. L. Bell	Rad.	15,337	2,765	254	44	2	1	0	7/1	3	$22.50
Long Island College Hospital [a1,13]	Brooklyn	G. B. Cramp	Rad.	6,332	1,202	74	34	1	0	0	7/1	1	$40
Methodist Hospital [a13]	Brooklyn	G. N. Scatchard	Rad.	13,052	1,481	11	56	2	0	0	7/1	3-4	$50
Edward J. Meyer Memorial Hospital [a1,12]	Buffalo	A. V. Stabrtz	Rad.	24,191	8,157	97	75	2	0	0	7/1	2	$18
Queens General Hospital [a1,12]	Jamaica, N. Y.	I. S. Stabrtz	Rad.	24,191	8,157	97	75	2	0	0	7/1	2	$18
New Rochelle Hospital [a12]	New Rochelle, N. Y.	J. F. Miller	Roent.	8,394	3,388	24	48	1	0	0	Varies	1-2	$50
Bellevue Hospital [a1], (D. R.[11], Ther. Rad.[11])	New York City	L. R. Friedman	D. R.	110,346	.....	.....	39	5	0	0	1/1, 7/1	1½	$18
		I. I. Kaplan	Ther.Rad.	.....	10,669	703	39	1	3	2	1/1, 7/1	1	$18
Beth Israel Hospital [a1,11]	New York City		Rad.	7,859	2,564	135	42	2	0	0	1/1, 10/1	1	$15
Bronx Hospital [a12]	New York City	W. Snow	Rad.	6,769	2,176	10	44	1	1	0	1/1, 7/1	1	$25
Flower and Fifth Avenue Hospitals [a13]	New York City	C. Howard	Rad.	5,317	2,068	45	28	1	0	0	7/1	1	....
Lenox Hill Hospital [a1,13]	New York City	F. Huber	Roent.	14,646	2,876	27	40	1	0	0	1/1	1	$25
Montefiore Hospital [a1,12]	New York City	A. J. Bendick and J. R. Freid	Rad.	7,753	7,994	22	64	3	0	0	1/1, 7/1	1-2	....
Morrisania City Hospital [a12]	New York City	S. Weltzner	Rad.	23,374	5,170	121	30	1	0	0	1/1	1	$18
Mount Sinai Hospital [a1,13]	New York City	M. L. Sussman	Rad.	22,283	12,613	.....	48	2	2	0	1/1, 7/1	2	$50
New York City Hospital [a11]	New York City	E. Kraft	D. R.	12,801	73	.....	37	1	0	0	7/1	1	$100
New York Hospital [a13]	New York City	J. R. Carty	Rad.	45,745	8,213	43	67	1	2	0	7/1	3-4	$25
New York Polyclinic Medical School and Hospital [a12]	New York City	E. E. Smith	Rad.	5,932	2,602	6	20	1	0	0	7/1	2	....
New York Post-Graduate Hospital [a13]	New York City	W. H. Meyer	Rad.	10,374	6,005	731	43	1	2	0	1/1, 7/1	1½-2	$30
Presbyterian Hospital [a1,13]	New York City	R. Golden	Rad.	26,232	12,879	303	59	1	2	0	9/1	3	$42
Roosevelt Hospital [a13]	New York City	W. H. Boone	Rad.	16,542	2,063	64	45	1	1	0	7/1	1-2	$25
St. Luke's Hospital [a13]	New York City	E. J. Ryann	Rad.	21,564	4,972	142	51	1	1	0	1/1	2	$50
Welfare Hosp. for Chronic Diseases [a1,13]	New York City	H. K. Taylor	Roent.	11,936	730	.....	47	1	0	0	7/1	1+	$100
Strong Memorial and Rochester Municipal Hospitals [a13]	Rochester, N. Y.	S. L. Warren	Rad.	20,000	8,400	511	71	1	2	9	7/1	1-4	$83
Sea View Hospital [1,13]	Staten Island, N. Y.	A. V. Shapiro	D. R.	22,537	.....	.....	30	1	0	0	7/1	1	$100

Numerical and other references will be found on page 1344.

20.—RADIOLOGY—(Continued)

The following services are approved by the Council and the American Board of Radiology (See footnotes 11, 12, and 13)

		Chief of Service	Type of Training [15]	Roentgenographic Examinations	X-Ray Treatments	Radium Treatments	Autopsy Percentage	Residents	Assistant Residents	Fellows	Service Begins	Length of Service (Years)	Beginning Stipend
Grasslands Hospital [a13]	Valhalla, N. Y.	A. G. Debbie	Rad.	13,205	7,501	36	65	1	1	0	7/1	1-3	$75
Duke Hospital [a1,13]	Durham, N. C.	R. J. Reeves	Rad.	27,670	9,166	580	55	1	2	0	7/1	1	$41
Watts Hospital [a13]	Durham, N. C.	W. W. Vaughan	Rad.	6,676	3,293	172	38	1	0	0	7/1	1	$25
North Carolina Baptist Hospital [a12]	Winston-Salem, N.C.	J. P. Rousseau	Rad.	6,000	4,200	2,210	43	1	1	0	7/1	1-3	....
City Hospital [a13]	Akron, O.	F. T. Moore	Rad.	11,465	6,711	50	45	1	0	0	7/1	3	$60
Cincinnati General Hospital [a13]	Cincinnati	E. C. Elsey	Rad.	24,267	8,078	403	56	2	3	0	7/1	3-4	*
Jewish Hospital [a13]	Cincinnati	S. Brown	Rad.	6,382	1,125	51	33	1	0	0	6/28	1-2	$45
City Hospital [a1,13]	Cleveland	H. Hauser	Rad.	21,992	6,414	25	41	1	2	0	7/1	1-3	$40
Cleveland Clinic Foundation Hosp. [a13]	Cleveland	B. H. Nichols	Rad.	34,843	6,500	156	42	0	0	4	7/1	1-3	$65
St. Luke's Hospital [a13]	Cleveland	R. J. May	Rad.	12,522	2,670	96	41	0	1	0	7/25	3	$50
St. Vincent Charity Hospital [a13]	Cleveland	J. R. Andrews	Rad.	6,984	966	44	31	2	0	0	7/1	1-3	$50
University Hospitals [a1,13]	Cleveland	E. Freedman	Rad.	24,900	5,546	190	53	1	0	0	7/1	2	$50
University Hospitals [a11]	Oklahoma City	J. E. Heatley	Rad.	17,714	11,844	295[b]	48	1	0	0	7/1	1	$50
Good Samaritan Hospital [a13]	Portland, Ore.	W. Haworth	Rad.	3,868	468	89	36	1	0	0	7/1	3	$50
St. Vincent's Hospital [a13]	Portland, Ore.	S. E. Rees	Rad.	5,445	965	25	50	1	0	0	8/1	3	$50
University of Oregon Medical School Hospitals and Clinics [a1,13]	Portland, Ore.	W. Y. Burton	Rad.	21,714	2,836	58	65	1	2	0	7/1	3	$30
Abington Memorial Hospital [a13]	Abington, Pa.	J. D. Zulick	Rad.	12,365	2,083	.....	58	1	0	0	7/1	1	$50
Bryn Mawr Hospital [a13]	Bryn Mawr, Pa.	R. S. Bromer	Rad.	8,712	3,076	100	47	1	0	0	11/1	1-3	$50
Graduate Hospital of the University of Pennsylvania [a13]	Philadelphia	A. Finkelstein	Rad.	10,810	2,981	75	36	0	0	1	7/1	2	$32
Hospital of the Protestant Episcopal Church [a13]	Philadelphia	D. A. Sampson	Roent.	7,708	2,117	.....	69	1	0	0	7/1	1-2	$50
Hosp. of the Univ. of Pennsylvania [a13]	Philadelphia	E. P. Pendergrass	Rad.	15,520	9,110	16	90	2	0	4	10/1	1-3	None
Jefferson Medical College Hospital [a13]	Philadelphia	K. Kornblum	Rad.	18,875	15,539	1,109	51	3	0	2	7/1	3	None
Jewish Hospital [a1,13]	Philadelphia	L. Solis-Cohen	Rad.	8,933	2,847	27	61	1	0	0	6/15	1	None
Mount Sinai Hospital [a1,13]	Philadelphia	F. Rosenbaum and L. Edelken	Rad.	11,006	901	66	57	1	0	0	7/15	2-3	$25
Pennsylvania Hospital [a13]	Philadelphia	P. A. Bishop	Rad.	11,423	2,132	137	65	1	0	0	7/1	1-3	$20
Philadelphia General Hospital [a1,12]	Philadelphia	B. P. Widmann	Rad.	19,899	16,500		66	1	0	0	8/1	1-2	$83
Presbyterian Hospital [a12]	Philadelphia	J. H. Vastine, II	Rad.	7,262	5,136	90	80	1	0	0	9/1	1	....
Temple University Hospital [a13]	Philadelphia	W. E. Chamberlain	Rad.	15,802	4,741	221	63	3	0	0	9/1	3	$40
Mercy Hospital [a11]	Pittsburgh	H. N. Mawhinney	Rad.	13,017	4,102	205	32	1	0	0	9/1	3	....
Robert Packer Hospital [a13]	Sayre, Pa.	S. P. Perry	Rad.	7,170	2,196	85	47	0	0	1	9/1	3	$58[e]
Roper Hospital [a12]	Charleston, S. C.	B. S. Kalayjian	Rad.	8,090	2,125	20	42	1	0	0	7/1	1-3	$25
John Gaston Hospital [a13]	Memphis, Tenn.	H. Rudisell, Jr.	Rad.	18,384	3,836	46	24	1	2	0	7/1	1	$33
Methodist Hospital [a13]	Memphis, Tenn.	S. W. Coley	Rad.	5,400	1,600	40	33	1	0	0	7/1	1-3	....
Vanderbilt University Hospital [a1,13]	Nashville, Tenn.	C. C. McClure	Rad.	10,293	3,312	.....	57	0	1	0	7/1	1+	$35
Baylor University Hospital [a1,13]	Dallas, Tex.	A. Seeds	Rad.	8,875	2,927	108	29	1	1	0	7/1	1-2	$37.50
Parkland Hospital [a1,13]	Dallas, Tex.	J. R. Maxfield	Rad.	14,031	3,337	71	21	1	0	0	7/1	1-3	$25
John Sealy Hospital [a1,13]	Galveston, Tex.	J. B. Johnson	Rad.	13,822	1,811	3	61	1	1	0	7/1	1-3	$25
Mary Fletcher Hospital [a13]	Burlington, Vt.	A. B. Soule, Jr.	Rad.	4,036	3,674	72	44	1	0	0	7/1	1	$50
University of Virginia Hospital [a13]	Charlottesville, Va.	V. W. Archer	Rad.	18,199	5,463	176	39	1	2	0	7/1	1	None
Medical Coll. of Virginia, Hosp. Div. [a1,13]	Richmond, Va.	F. B. Mandeville	Rad.	12,860	3,855	114	39	1	0	0	7/1	1	$25
Virginia Mason Hospital [a12]	Seattle	M. F. Dwyer	Rad.	13,419	550	70	61	1	0	0	6/25	1	$50
State of Wisconsin General Hospital [a1,13]	Madison, Wis.	E. A. Pohle	Rad.	33,295	9,655	279	72	3	0	0	7/1	3	$25
Columbia Hospital [a13]	Milwaukee	S. A. Morton	Rad.	5,488	3,366	90	51	1	0	0	7/1	3	$50

21. SURGERY

		Chief of Service	Inpatients Treated	Outpatient Visits	Deaths	Autopsies	Residents	Assistant Residents	Fellows	Service Begins	Length of Service (Years)	Beginning Stipend
Hillmann Hospital *	Birmingham, Ala.	D. S. Moore	1,664	11,866	101	68	2	0	0	7/1	1	$50
Norwood Hospital [a1]	Birmingham, Ala.	C. N. Carraway	2,166	8,002	41	19	1	0	0	7/1	1	$150
Employees' Hospital of the Tennessee Coal, Iron and Railroad Co.*	Fairfield, Ala.	L. Noland	1,370	10,600	20	5	1	0	0	7/1	1	$150
Baptist State Hospital *	Little Rock, Ark.	R. M. Eubanks	2,637	.....	45	9	1	0	0	7/1	1-3	$50
General Hospital of Fresno County *	Fresno, Calif.	.....	932	.....	34	13	4	0	0	7/1	4	$85
Cedars of Lebanon Hospital *	Los Angeles	L. Feiger and M. H. Rabwin	2,029	3,540	84	29	1	0	0	7/1	1	$75
Los Angeles County Hospital [a1]	Los Angeles	P. Cunnane	4,391	26,433	272	149	7	0	0	1/1, 7/1	3½	$10
White Memorial Hospital *	Los Angeles	G. Thomason	1,522	12,102	47	23	2	0	0	7/1	1-3	$80
Highland-Alameda County Hospital [a1]	Oakland, Calif.	.....	1,367	.....	...	27	1	1	0	7/1	...	$40
San Bernardino County Charity Hospital *	San Bernardino, Calif.	C. G. Hilliard	852	4,302	86	..	1	0	0	7/1	1	$100
San Diego County General Hospital *	San Diego, Calif.	C. M. Fox	2,836	16,033	286	66	2	0	0	7/1	1	$115
Franklin Hospital [a1]	San Francisco	T. F. Mullen	1,464	.....	7	5	1	1	0	7/1	1	$50
Children's Hospital [a1]	San Francisco	A. Kilgore	.....	2,381	17	..	0	1	0	7/1	1	$ 5
Mary's Help Hospital *	San Francisco	E. Carlson	491	5,865	20	3	1	0	0	7/1	1	$ 25
Mount Zion Hospital *	San Francisco	F. I. Harris	2,003	2,387	21	10	1	0	0	7/1	1	$50
St. Luke's Hospital *	San Francisco	A. Weeks	4,027	.....	59	32	1	0	0	7/1	1	$100
San Francisco Hospital [a1]	San Francisco	H. Brunn and L. Eloesser	4,453	.....	...	..	2	9	0	7/1	1	$50
Stanford University Hospital [a1]	San Francisco	E. Holman	1,868	15,338	24	8	1	4	0	7/1	1	$35
University of California Hospitals [a1]	San Francisco	H. C. Naffziger	1,356	14,549	32	24	1	8	0	9/1	1+	$25
Santa Clara County Hospital *	San Jose, Calif.	C. Sullivan	3,966	.....	...	14	1	0	0	7/1	1-5	$ 50
Colorado General Hospital *	Denver	G. B. Packard	906	5,978	46	42	2	0	0	8/1	2	$40
St. Luke's Hospital *	Denver	C. McLauthlin	3,836	.....	44	24	2	0	0	7/1	2	$30
Grace Hospital *	New Haven, Conn.	R. Nichols	1,849	691	47	11	1	0	0	7/1	3	$40
New Haven Hospital *	New Haven, Conn.	S. C. Harvey	5,744	12,017	107	61	2	6	0	7/1	1+	*
Memorial Hospital *	Wilmington, Del.	J. G. Spackman	2,268[b]	1,641[b]	...	..	1	2	0	9/1	3	$50
Central Dispensary and Emergency Hospital *	Washington, D. C.	J. F. Mitchell	2,824	.....	53	29	2	3	0	7/1	1	$49.50
Freedmen's Hospital [a1]	Washington, D. C.	C. Drew	998	8,476	49	13	1	3	0	10/1	1-3	$20
Gallinger Municipal Hospital *	Washington, D. C.	C. S. White	1,451	6,924	68	27	1	2	0	7/1	1	....
Garfield Memorial Hospital *	Washington, D. C.	H. H. Kerr	4,048	1,861	67	..	1	2	0	7/1	1-2	$50
Georgetown University Hospital *	Washington, D. C.	J. A. Cahill Jr.	1,748	2,082	44	22	1	1	0	7/1	1-3	$75
Providence Hospital *	Washington, D. C.	J. Cahill	2,713	12,018	63	13	1	1	0	7/1	1	....
Sibley Memorial Hospital *	Washington, D. C.	P. S. Putzki	1,923	.....	...	..	1	0	0	7/1	2	$75
Duval County Hospital *	Jacksonville, Fla.	E. Jelks	674	.....	74	34	1	2	0	7/1	1	$30
James M. Jackson Memorial Hospital *	Miami, Fla.	.....	2,617	6,631	114	46	1	2	0	7/1	1	$75
Grady Hospital *	Atlanta, Ga.	B. H. Clifton and G. Fuller	4,184	42,427	239	69	2	10	2	7/1	4	$40
St. Joseph's Infirmary *	Atlanta, Ga.	G. Pope Huguley	2,004	480	13	3	1	0	0	7/1	1-3	$100
University Hospital [a1]	Augusta, Ga.	J. H. Sherman	2,941	4,543	115	30	0	3	0	7/1	1-4	$15
Emory University Hospital *	Emory University, Ga.	.....	7,340	.....	15	8	1	1	0	7/1	1	$50

Numerical and other references will be found on page 1344.

21. SURGERY—(Continued)

		Chief of Service	Inpatients Treated [6]	Outpatient Visits	Deaths	Autopsies	Residents	Residents Assistant	Fellows	Service Begins	Length of Service (Years)	Beginning Stipend
Augustana Hospital *	Chicago	N. M. Percy	1,595	365	....	..	1	0	0	1/1	1	None
Cook County Hospital *[1]	Chicago	M. Davison	18,332	42,025	1,118	139	12	0	0	1/1	1-3	$25
Grant Hospital *	Chicago		3,098	7,090	30	9	2	0	0	7/1	1-3	$75
Mercy Hospital—Loyola University Clinics *	Chicago	H. A. Oberhelman	2,095	5,082	60	27	2	0	0	7/1	1	$50
Michael Reese Hospital *[1]	Chicago	M. L. Parker	2,334	7,538	81	36	3	3	0	1/1, 7/1	1-2	$50
Mount Sinai Hospital *[1]	Chicago		1,572	4,286	31	12	1	0	0	6/15	1	$30
Norwegian-American Hospital *	Chicago	J. V. Fowler Sr.	1,030	....	6	0	1	0	0	7/1	1	$35
Passavant Memorial Hospital *[1]	Chicago	L. Davis	2,031	8,604	48	33	1	3	0	1/1, 7/1	1	....
Presbyterian Hospital *	Chicago	V. C. David	2,220	12,312[e]	44	25	2	0	0	Varies	1-3	$50
Provident Hospital *[1]	Chicago	H. P. Cooper	972	11,773	35	23	1	0	1	7/1	1-5	$50
Research and Educational Hospital *	Chicago	W. H. Cole	1,110	....	24	20	3	0	0	7/1	1-3	$50
St. Joseph Hospital *	Chicago	H. McKenna	1,418	769	52	21	1	0	0	7/1	1	$50
St. Luke's Hospital *	Chicago	F. L. McMillan	4,509	4,470	94	49	1	4	0	7/1	1-3	$25
University of Chicago Clinics *	Chicago	D. B. Phemister	1,585	21,671	69	59	1	4	4	7/1	1-6	$25
Wesley Memorial Hospital *	Chicago	R. W. McNealy	2,407	....	51	33	3	0	0	7/1	1-2	$35
Women and Children's Hospital *[1]	Chicago	P. M. Stetler	851	4,899	9	2	1	0	0	1/1	1-3	$50
Evanston Hospital *	Evanston, Ill.	F. Christopher	2,793	11,475	97	75	1	1	0	9/1	1-2	$50
St. Francis Hospital *[1]	Evanston, Ill.	C. L. Conroy	2,033	....	41	8	1	0	0	7/1	1	$41
St. Francis Hospital *	Peoria, Ill.	W. R. Roche	1,299	....	26	9	1	0	0	7/1	1	$75
Indianapolis City Hospital *	Indianapolis	M. N. Hadley	1,455	14,081	66	31	2	0	0	7/1	1-2	$41.64
Indiana University Medical Center *[1]	Indianapolis	W. D. Gatch	2,083	8,480	76	40	2	3	0	7/1	1-3	$66.33
Methodist Hospital *	Indianapolis		12,652	....	146	50	2	0	0	7/1	1-2	$35
University Hospitals *[1]	Iowa City	F. R. Peterson	3,391	4,640	165	100	1	7	0	7/1	1	$20.83
University of Kansas Hospitals *[1]	Kansas City, Kan.	T. G. Orr	766	4,947	45	34	1	4	0	7/1	1-4	$50
St. Joseph's Hospital *	Lexington, Ky.	F. W. Rankin and W. O. Bullock	1,937	....	52	24	1	2	0	7/1	1-3	$30
Louisville General Hospital *	Louisville, Ky.	R. A. Griswold	1,931	19,895	115	50	15	4	0	7/1	1-5	$13.91
St. Joseph Infirmary *	Louisville, Ky.	I. Abell Sr.	6,897[b]	....	....	..	1	2	0	7/1	1-2	$35
Charity Hospital *[1]	New Orleans		33,291	53,353	905	176	11	16	0	7/1	1-4	$25
Touro Infirmary *	New Orleans	L. R. Landry	3,037	14,085	66	37	1	2	0	7/1	1-3	$25
Baltimore City Hospitals *	Baltimore	T. B. Aycock	1,949	....	342	150	1	7	0	7/1	1	$42.50
Bon Secours Hospital *	Baltimore	T. B. Aycock	1,481	1,042	31	16	1	3	0	7/1	1-4	$55
Church Home and Infirmary *[1]	Baltimore	T. G. Cullen	2,421	1,791	53	28	1	3	0	7/1	2-4	$20
Franklin Square Hospital *	Baltimore	E. S. Johnston	574	....	..	..	1	1	0	7/1	1	....
Hospital for Women *	Baltimore	W. Rienhoff	746	3,871	22	9	1	2	0	7/1	1	$50
Johns Hopkins Hospital *	Baltimore	A. Blalock	2,264	42,430	80	49	1	6	0	7/1 or 9/1	1-8	....
Maryland General Hospital *	Baltimore	W. J. Coleman and G. A. Bawdon	2,401	2,228	91	15	1	5	0	7/1	1-3	$25
Mercy Hospital *	Baltimore	W. D. Wise	2,297[b]	5,342[b]	....	..	1	4	0	9/1	3	$50
Provident Hospital and Free Dispensary *	Baltimore	G. S. Finney	720	1,050	54	12	1	1	0	Varies	1-4	$30
St. Agnes Hospital *	Baltimore	G. A. Stewart and R. Shackelford	1,220	2,100	44	14	4	1	0	10/1	1	....
St. Joseph's Hospital *	Baltimore	W. R. Geraghty	2,003	5,469	61	9	1	4	0	7/1	3-4	$10
Sinai Hospital *	Baltimore	A. Ullman	1,434	....	42	16	1	5	0	7/1	1	$50
South Baltimore General Hospital *	Baltimore	C. W. Maxson	1,504	4,210	55	7	1	3	0	7/1	1-4	....
Union Memorial Hospital *	Baltimore	J. M. T. Finney	4,519	....	91	39	1	6	0	7/1	1-4	$12.50
University Hospital *	Baltimore	A. M. Shipley	2,732	10,599	95	33	1	5	0	9/1	1-3	$25
West Baltimore General Hospital *	Baltimore	N. C. Marvel	1,106	4,491	33	9	3	0	0	7/1	..	$50
Beverly Hospital *	Beverly, Mass.	P. P. Johnson	1,428	....	42	33	1	0	0	9/3	2-3	....
Beth Israel Hospital *	Boston		2,890	5,474	66	43	1	2	0	1/1	1	$76.16
Boston City Hospital *	Boston	R. C. Cochrane	13,247	65,670	598	313	5	2	0	Varies	1+	$50
Children's Hospital	Boston	W. E. Ladd	1,796	13,911	67	47	2	0	0	7/1	1	$83.33
Lahey Clinic [7]	Boston	F. H. Lahey	3,500	....	..	0	0	7		Quart.	1-3	$100[c]
Massachusetts General Hospital *	Boston	E. D. Churchill and A. W. Allen	4,745	25,576	92	56	2	21	0	.....	...	....
Massachusetts Memorial Hospitals *	Boston	H. M. Clute	5,054	3,053	54	33	1	3	0	7/1	1-2	$50
Peter Bent Brigham Hospital *	Boston	E. C. Cutler	2,894	32,678	84	49	1	4	3	Varies	1+	$41.67
Cambridge Hospital *[1]	Cambridge, Mass.	H. P. Stevens	1,274	3,794	43	13	1	0	0	7/1	1-2	....
Truesdale Hospital	Fall River, Mass.	P. E. Truesdale	866	....	18	11	2	0	0	1/1, 7/1	1-2	$50
Memorial Hospital *	Worcester, Mass.	B. H. Alton	2,427	1,907	43	18	1	0	0	8/1	1-3	$100
Worcester City Hospital *	Worcester, Mass.	H. F. Andrews	2,083	4,067	84	26	1	1	0	7/1	1-2	$50
University Hospital *[1]	Ann Arbor, Mich.	F. A. Coller	2,366	8,866	107	66	5	12	6	7/1	1-3	$25
Alexander Blain Hospital	Detroit	A. W. Blain and I. G. Downer	1,161	17,130	22	9	3	0	0	7/1	1-4	$100
City of Detroit Receiving Hospital *[1]	Detroit	C. F. Vale and C. G. Johnston	4,896	38,901	192	68	2	4	2	7/15	1-3	$75
Grace Hospital *	Detroit	F. A. Kelly	6,037	2,055	150	37	1	2	0	9/1	1-3	$100
Harper Hospital *	Detroit	A. D. McAlpine	11,125	....	158	64	1	1	8	7/1	1	$25
Henry Ford Hospital *	Detroit	R. D. McClure	7,517	101,530	137	65	14	12	0	7/1	1-5	$130
Providence Hospital *	Detroit	R. S. Andrews	6,965	....	111	56	1	5	0	7/1	1	$25
St. Mary's Hospital *	Detroit	G. K. Glasgow	4,675	936	96	24	0	2	0	7/1	3-4	$125
Eloise Hospital and Infirmary *[1]	Eloise, Mich.	W. J. Seymour	1,833	6,479	109	39	2	3	0	7/1	1	$94.58
Hurley Hospital *	Flint, Mich.	A. H. Kretchmar	1,611	....	54	15	0	3	0	7/1	1	$41.66
Blodgett Memorial *[1] Hospital *	Grand Rapids, Mich.	H. J. Vanden Berg	867	....	30	15	1	0	0	1/1, 7/1	1	$100
Butterworth Hospital *	Grand Rapids, Mich.	G. H. Southwick	5,564	....	100	40	2	1	0	7/1	1-3	$100
St. Mary's Hospital *	Grand Rapids, Mich.	C. F. Snapp	3,415	1,075	107	18	1	1	0	7/1	1	$50
Minneapolis General Hospital *[1]	Minneapolis	A. A. Zierold	2,035	14,550	149	53	0	0	6	1/1, 7/1	3	$25
University Hospitals *	Minneapolis	O. H. Wangensteen	1,564	11,083	95	69	0	0	8	7/1	1-5	$50
Mayo Foundation	Rochester, Minn.	D. C. Balfour	(See page 1344)									
Ancker Hospital *	St. Paul	A. S. Colvin	1,674	4,428	94	77	3	0	0	7/1	3	$50
St. Louis County Hospital *	Clayton, Mo.	L. A. Will	1,994	41,352	111	67	1	3	0	7/1	1-2	$25
Kansas City General Hospital *	Kansas City, Mo.	J. E. Stowers	1,142	4,777	65	50	3	0	0	7/1	3	$50
St. Luke's Hospital *	Kansas City, Mo.	F. I. Wilson	3,555	9	41	40	1	0	0	7/1	1-3	$50
St. Mary's Hospital *[1]	Kansas City, Mo.	M. J. Owens and J. R. McVay	1,618	....	120	72	1	0	0	7/1	1	$75
Barnes Hospital *	St. Louis		4,432	....	57	31	1	8	0	7/1	1-3	$25
De Paul Hospital *	St. Louis	H. A. Hassett	1,960	575	95	19	1	0	0	7/1	1-2	....
Homer G. Phillips Hospital *	St. Louis	R. Elman	2,015	10,196	137	25	2	2	0	7/1	1-3	$75
Jewish Hospital *[1]	St. Louis	M. W. Myer	1,484	3,446	54	23	1	1	0	7/1	1	$90
Missouri Baptist Hospital *	St. Louis		2,037	....	..	..	1	0	0	7/1	1	....
St. Anthony's Hospital *	St. Louis	F. J. Tainter	1,398	....	77	17	1	0	0	7/1	1	$50
St. Louis City Hospital *	St. Louis	P. Heinbecker	1,953[b]	10,514[b]	....	..	3	8	0	7/1	1-3	$50
St. Luke's Hospital *	St. Louis	E. V. Mastin	987	....	80	33	0	1	0	7/1	1	$50
St. Mary's Group of Hospitals *	St. Louis	L. Rassieur	2,480	7,215	94	64	1	1	0	7/1	3	$25
Bishop Clarkson Memorial Hospital *	Omaha	R. R. Best	885	....	28	15	1	0	0	7/1	1	$50
Creighton Memorial St. Joseph's Hospital *	Omaha	C. McMartin	1,109	3,864	29	7	1	0	0	7/1	1-2	$50
Cooper Hospital *	Camden, N. J.	P. M. Mecray Sr. and I. E. Deibert	1,704	25,042	148	79	1	0	0	12/1	1-3	$83.33
Jersey City Hospital *[1]	Jersey City, N. J.	E. Burke	4,028	23,360	125	41	1	3	0	10/1	2-3	$100
Mountainside Hospital *	Montclair, N. J.	V. B. Seidler	3,597	6,917	56	21	1	0	0	7/1	1+	$100
Burlington County Hospital *	Mount Holly, N. J.	W. E. Lee	1,074	2,289	48	22	1	0	0	7/1	1	$100
Albany Hospital *[1]	Albany, N. Y.	J. L. Donhauser	2,780	....	75	47	1	2	0	7/1	2+	$25

Numerical and other references will be found on page 1344.

21. SURGERY—(Continued)

		Chief of Service	Inpatients Treated	Outpatient Visits	Deaths	Autopsies	Residents	Assistant Residents	Fellows	Service Begins	Length of Service (Years)	Beginning Stipend
Coney Island Hospital *	Brooklyn	D. A. McAteer	3,344	47,671	120	16	1	1	0	7/1	1	$100
Cumberland Hospital *	Brooklyn	M. N. Foote	4,103	32,077	80	19	1	1	0	7/1	1	$18
Greenpoint Hospital *[1]	Brooklyn	John Smith	1,615	12,137	67	8	1	0	0	9/1	1	$18
Jewish Hospital *[1]	Brooklyn	L. M. Davidoff	2,357	5,993	79	40	1	3	1	8/1	4	$25
Kings County Hospital *	Brooklyn	J. Tenopyr and R. Barber	14,628	51,029	...	..	3	3	0	7/1	2	$18
Long Island College Hospital *	Brooklyn	E. Goetsch	2,310	16,058	66	..	1	3	0	.....	5-6	$22.50
Norwegian Lutheran Deaconesses Home and Hospital *[1]	Brooklyn		1,361	11,471	...	..	1	0	0	7/1	1	$25
St. Mary's Hospital *[1]	Brooklyn	W. V. Pascual	1,404	.....	54	8	1	0	0	7/1	1	$50
Buffalo General Hospital *[1]	Buffalo	H. A. Smith	2,328	.....	105	50	1	4	0	7/1	1	$25
Deaconess Hospital *	Buffalo		1,633	1,495	...	..	1	0	0	7/1	1	$100
Edward J. Meyer Memorial Hospital *	Buffalo	J. D. Stewart	1,582	6,108	113	40	2	1	0	7/1	3	$50
Millard Fillmore Hospital *	Buffalo	H. N. Kenwell	2,365	326	66	18	2	0	0	7/1	1	$25
Clifton Springs Sanitarium and Clinic	Clifton Springs, N. Y.	A. S. Taylor	886	.....	30	15	1	1	0	7/1	1-3	$50
Mary Imogene Bassett Hospital *	Cooperstown, N. Y.	M. A. McIver	766		25	12	1	0	0	7/1	1	$125
Meadowbrook Hospital *	Hempstead, N. Y.	C. A. Hettesheimer and A. S. Warinner	1,038	.....	59	35	2	0	0	7/1	1-2	$50
Mary Immaculate Hospital *	Jamaica, N. Y.		1,836	2,067	49	10	1	0	0	7/1	1	None
Queens General Hospital *[1]	Jamaica, N. Y.	F. N. Dealy	3,844	17,051	188	140	1	1	0	7/1	2	$18
Charles S. Wilson Memorial Hospital *	Johnson City, N. Y.	L. O. Smith	2,531	.....	31	13	1	0	0	7/1	1-3	$75
New Rochelle Hospital *	New Rochelle, N. Y.	G. C. Adie	2,025	6,644	59	29	1	1	0	7/1	1	$50
Bellevue Hospital *	New York City		10,566	3,622	...	..	3	0	0	.....	...	...
Flower-Fifth Avenue Hospital *	New York City	L. R. Kaufman	2,369	13,882	81	10	0	2	11	7/1	1	$25
Harlem Hospital *[1]	New York City	R. H. Young	5,491[b]	33,958[b]	...	..	1	1	0	1/1, 7/1	1	$18
Hospital for Special Surgery	New York City	C. G. Burdick	1,819	6,032	13	6	3	0	0	1/1, 5/1, 9/1	1	$20
Lenox Hill Hospital *[1]	New York City		1,562	5,882	...	..	2	0	0	1/1	2	$50
Metropolitan Hospital *[1]	New York City	L. R. Kaufman	1,542	6,168	126	43	2	0	0	7/1	1+	$100
Montefiore Hospital for Chronic Diseases *[1]	New York City	S. Standard	133	270	7	3	1	3	0	1/1, 7/1	1-1½	....
Mount Sinai Hospital *[1]	New York City		.....	.....	..	..	5	6	0	1/1, 7/1	1-2	$50
New York City Hospital *	New York City	F. W. Bancroft	2,030	7,747	130	32	1	1	0	7/1	1	$15
New York Hospital *	New York City	G. J. Heuer	5,121	47,277	87	51	4	22	0	7/1	1-7	$25
New York Infirmary for Women and Children *[1]	New York City	A. Hubert	453	2,953	9	7	1	0	0	9/1	1	$45
New York Polyclinic Medical School and Hospital *	New York City		1,350	.....	38	8	8	0	0	Quart.	2	....
New York Post-Graduate Medical School and Hospital *[1]	New York City	T. H. Russell	2,604	12,933	99	41	3	13	0	1/1, 7/1	1-3	$30
Presbyterian Hospital *[1]	New York City	A. O. Whipple	3,800	.....	108	58	2	16	0	1/1, 7/1	1-4	None
Genesee Hospital *	Rochester, N. Y.	C. Sumner	2,288[b]	4,485[b]	...	..	1	2	0	7/1	1	$41
Rochester General Hospital *	Rochester, N. Y.	W. Wooden	4,032	6,643	87	59	2	2	0	7/1	1-2	$25
Strong Memorial and Rochester Municipal Hospitals *	Rochester, N. Y.	J. J. Morton	2,474	18,879	188	139	1	6	1	7/1	1-4	$41.66
Hospital of the Good Shepherd *	Syracuse, N. Y.	A. G. Swift	2,991[b]	.....	...	..	1	2	0	7/1	1	$20.83
Grasslands Hospital *	Valhalla, N. Y.	G. C. Adie	614	2,240	48	39	1	2	0	7/1	1-3	$75
Duke Hospital *[1]	Durham, N. C.	D. Hart	1,840	13,103	64	23	1	8	0	7/1	1	$41
Watts Hospital *	Durham, N. C.	F. Roberson	1,875[b]	3,836[b]	...	..	1	2	0	7/1	1	$25
Rutherford Hospital	Rutherfordton, N. C.		1,037	2,050	12	2	1	0	0	7/1	1	$50
City Hospital *	Winston-Salem, N. C.		1,954	3,845	68	29	2	2	0	7/1	3	$50
North Carolina Baptist Hospital *	Winston-Salem	H. H. Bradshaw	2,219	661	24	13	2	0	0	7/1	1-5	$83.33
Mercy Hospital *[1]	Minot, N. D.	A. L. Cameron	63	.....	14	14	1	0	0	7/1	1	$50
City Hospital *	Akron, Ohio		5,548	1,589	158	63	5	0	0	7/1	1-4	$50
Peoples Hospital *	Akron, Ohio		929	.....	43	7	1	0	0	7/1	1	$100
St. Thomas Hospital *	Akron, Ohio	H. H. Musser	988	.....	38	3	1	0	0	7/1	1	$60
Mercy Hospital *	Canton, Ohio	A. W. Warren	3,379	.....	113	22	1	1	0	7/1	1	$50
Christ Hospital *	Cincinnati		2,635	1,756	104	46	2	0	0	6/24	1-3	$75
Cincinnati General Hospital *	Cincinnati	M. R. Reid	3,674	25,973	208	98	2	11	0	9/1	1-6	*
Deaconess Hospital *	Cincinnati	W. R. Griess and R. W. Good	2,588	.....	50	8	1	0	0	7/1	1	$75
Good Samaritan Hospital *	Cincinnati	J. L. De Courcy	6,096	1,068	98	47	3	1	0	7/1	1-5	$50
Jewish Hospital *	Cincinnati	J. L. Ransohoff	972	.....	35	15	2	0	0	6/28	1-2	$45
City Hospital *[1]	Cleveland	C. H. Lenhart	2,595	16,642	254	92	2	14	0	1/1, 7/1	1-5	$40
Cleveland Clinic Foundation Hospital *	Cleveland	C. W. Crile Sr. and C. W. Crile Jr.	2,910	.....	80	32	0	0	9	7/1	1-3	$65
Fairview Park Hospital *	Cleveland	H. W. Maschhimer	967	2,532	49	4	1	1	0	7/1	1	$40
Mount Sinai Hospital *[1]	Cleveland	A. Strauss	2,018	3,380	69	22	2	0	0	7/1	1-2	$60
St. Alexis Hospital *	Cleveland	S. J. F. Corrigan	5,076	6,898	110	33	4	0	0	7/1	2	$32.50
St. John's Hospital *[1]	Cleveland	J. E. Hannibal	1,908	.....	53	6	3	0	0	7/1	1-2	$50
St. Luke's Hospital *	Cleveland	D. M. Glover	3,998	13,496	142	96	2	1	0	6/25	3	$50
St. Vincent's Charity Hospital *	Cleveland	O. A. Weber	5,036	16,710	147	50	2	5	0	7/1	1-4	$75
University Hospitals *[1]	Cleveland	C. H. Lenhart	4,991	17,608	122	58	5	0	0	7/1	2	$25
St. Francis Hospital *	Columbus, Ohio	L. B. Harris	1,222	929	101	52	1	0	0	7/1	1	$25
Starling-Loving University Hospital *	Columbus, Ohio	V. A. Dodd	1,336[b]	5,082[b]	...	..	1	1	0	7/1	...	$25
Miami Valley Hospital *	Dayton, Ohio	R. K. Finley	641	.....	67	30	1	0	0	7/1	1	$75
Huron Road Hospital *	East Cleveland		2,575	1,417	76	..	0	4	0	7/1	...	....
Lucas County General Hospital *	Toledo, Ohio	E. J. McCormick	1,459	11,801	93	30	1	0	0	7/1	1+	$50
St. Vincent's Hospital *	Toledo, Ohio	F. M. Douglass	1,563	756	98	42	1	0	0	7/1	1	$100
St. Elizabeth's Hospital *	Youngstown, Ohio	J. M. Ranz	2,153	359	83	10	2	0	0	7/1	...	$85
St. Anthony Hospital *	Oklahoma City	R. M. Howard	4,708	.....	...	..	1	1	0	7/1	1	$60
University Hospitals *	Oklahoma City	R. M. Howard	1,260	4,156	102	58	1	1	0	7/1	1	$50
University of Oregon Medical School Hospitals and Clinics *	Portland, Ore	T. M. Joyce	2,208	10,303	88	45	1	2	0	7/1	2	$30
Abington Memorial Hospital *	Abington, Pa	D. B. Pfeiffer	2,371	3,723	79	43	1	1	0	7/1	2	$15
Sacred Heart Hospital *	Allentown, Pa	W. A. Hausman	2,024	3,324	132	51	1	0	0	6/21	1	$75
St. Luke's Hospital *	Bethlehem, Pa	W. L. Estes Jr.	2,216	416	84	29	0	0	1	7/1	2	$75
Bryn Mawr Hospital *	Bryn Mawr, Pa		562	2,531	28	17	1	0	0	7/1	1	$30
George F. Geisinger Memorial Hospital *[1]	Danville, Pa	H. L. Foss	2,215	12,656	76	19	2	0	0	7/1	1-2	$50
Germantown Dispensary and Hospital *	Philadelphia	W. E. Lee and W. B. Swartley	3,206	33,711	41	29	2	0	0	7/1	2-3	$50
Graduate Hospital of the University of Pennsylvania *	Philadelphia	W. E. Lee and W. Bates	1,292	19,058	56	17	2	0	0	7/1	2	None
Hahnemann Hospital *	Philadelphia	G. A. Van Lennep	2,051	14,721	116	49	3	0	0	9/1	2	$50
Hospital of the University of Pennsylvania *	Philadelphia	E. L. Eliason	2,628	7,304	51	32	0	0	7	7/1	5	None
Hospital of the Woman's Medical College of Pennsylvania *[1]	Philadelphia	J. S. Rodman	711	10,223	17	7	1	0	0	6/1	1-2	$50
Jefferson Medical College Hospital *	Philadelphia	T. A. Shallow and G. P. Muller	3,564	13,177	121	45	2	0	0	9/1	1	$50
Jewish Hospital *[1]	Philadelphia	M. Behrend	3,501	3,900	116	53	1	0	0	6/15	1-2	None
Lankenau Hospital *	Philadelphia	D. B. Pfeiffer and G. P. Muller	2,398	14,283	29	21	1	0	0	9/1	1+	$50
Mount Sinai Hospital *[1]	Philadelphia		929	.....	19	7	1	0	0	7/15	2-3	$25

Numerical and other references will be found on page 1344.

21. SURGERY—(Continued)

		Chief of Service	Inpatients Treated	Outpatient Visits	Deaths	Autopsies	Residents	Assistant Residents	Fellows	Service Begins	Length of Service (Years)	Beginning Stipend
Pennsylvania Hospital *	Philadelphia	W. E. Lee and J. B. Flick	1,982	21,451	59	45	2	0	0	10/1, 11/1	1-3	$20
Philadelphia General Hospital *[1]	Philadelphia		3,581	.....	...	..	2	0	1	8/1	1-2	$83.33
Presbyterian Hospital *	Philadelphia		1,557	7,558	74	43	1	0	0	9/1	1+	None
Temple University Hospital *	Philadelphia		1,747	1,886	95	57	3	0	0	7/1	3	$40
Woman's Hospital *[1]	Philadelphia	C. M. Smyth	739	3,533	14	8	1	0	0	7/1	3	$25
Allegheny General Hospital *	Pittsburgh	J. C. Burt	2,417	10,430	124	18	1	0	0	9/1	1	$85
Children's Hospital [1]	Pittsburgh	W. O. Sherman and E. W. Meredith	474	1,628	8	3	0	1	0	.....	1	$40
Mercy Hospital *	Pittsburgh	J. P. Griffith	4,065	.....	76	..	1	0	0	9/1	3	.....
Montefiore Hospital *	Pittsburgh		4,729	9,165	42	18	1	1	0	9/1	1-3	$50
St. Francis Hospital *	Pittsburgh		2,891	2,553	60	16	2	0	0	9/1	1-3	$65
Reading Hospital *	Reading, Pa.	W. A. Lebkicher	1,510	5,646	107	62	1	0	0	9/1	1	$83
Robert Packer Hospital *	Sayre, Pa.	D. Guthrie	1,248	3,720	44	21	0	0	2	9/1	2	$50
Roper Hospital *	Charleston, S. C.	R. S. Cathcart	1,840	9,304	86	34	1	2	1	7/1	1-3	....
Baroness Erlanger Hospital *	Chattanooga, Tenn.	A. M. Patterson	1,269	.....	73	13	1	0	0	7/1	1-3	$40
John Gaston Hospital *	Memphis, Tenn.	J. L. McGehee	1,944	11,581	123	28	1	1	0	7/1	1	$33
George W. Hubbard Hospital of Meharry Medical College *	Nashville, Tenn.	J. H. Hale	353	4,683	40	4	1	0	0	7/1	2	$75
Nashville General Hospital *	Nashville, Tenn.	J. A. Kirtley	1,338	21,218	78	17	1	1	0	7/1	1-2	$35
Vanderbilt University Hospital *[1]	Nashville, Tenn.	B. Brooks	2,285	16,577	77	49	1	6	0	7/1	1+	$35
Baylor University Hospital *[1]	Dallas, Tex.	C. B. Carter	4,676	2,419	62	10	1	2	0	7/1	1-3	$37.50
Parkland Hospital *[1]	Dallas, Tex.	L. Hudson	1,526	15,036	128	23	2	2	0	1/1, 7/1	2	$25
John Sealy Hospital *[1]	Galveston, Tex.	A. O. Singleton	1,170	5,970	...	..	1	5	0	7/1	1-3	$25
Hermann Hospital *	Houston, Tex.	J. T. Taylor	1,708	1,702	30	15	1	0	0	7/1	1-3	$50
Jefferson Davis Hospital *	Houston, Tex.	P. H. Scardino	1,474	4,600	110	30	0	2	0	7/1	1	$25
Southern Pacific Hospital	Houston, Tex.	J. L. Taylor	402	2,843	18	10	1	0	0	7/1	1-2	$100
University of Virginia Hospital *	Charlottesville, Va.	E. P. Lehman	2,095	8,566	87	43	1	1	1	7/1	1	$40
Chesapeake and Ohio Hospital	Clifton Forge, Va.	.....	2,275	.....	...	..	2	0	0	7/1	3	$50
Norfolk General Hospital *	Norfolk, Va.	.....	4,560	4,574	65	12	1	0	0	7/1	1-2	$50
Medical College of Virginia, Hospital Division *[1]	Richmond	I. A. Bigger	2,750	.....	126	45	2	5	0	7/1	1	.....
Jefferson Hospital *	Roanoke, Va.	H. H. Trout	521	.....	24	9	1	1	0	7/1	1	$150
King County Hospital *	Seattle	H. T. Buckner	2,335	23,281	71	31	1	0	0	7/1	1	$150
Virginia Mason Hospital *	Seattle	J. W. Baker and C. S. Stone	2,305	.....	37	24	1	1	0	6/25	1	$50
Charlestown General Hospital *	Charleston, W. Va.	J. E. Cannaday	2,311	1,771	33	8	1	2	0	7/1	1-3	$25
Laird Memorial Hospital	Montgomery, W. Va.	W. R. Laird	2,270	6,561	46	16	1	1	0	7/1	1-3	$100
State of Wisconsin General Hospital *[1]	Madison	E. R. Schmidt	2,270	2,241	79	53	2	5	0	7/1	3	$25
Columbia Hospital *	Milwaukee	H. C. Schumm	643	.....	29	17	1	0	0	7/1	3-4	$50
Milwaukee Children's Hospital [14]	Milwaukee	A. A. Schaefer	3,625	31,447	73	38	1	1	0	7/1	1	$30
St. Joseph's Hospital *	Milwaukee	F. A. Stratton	5,304[b]	2,659[b]	...	..	2	0	0	6/15	1-2	$40
St. Mary's Hospital *	Milwaukee	F. F. Witte	2,740	750	53	11	1	0	0	7/1	1	$90
Milwaukee County Hospital *	Wauwatosa, Wis.	J. M. King	3,265	12,209	64	30	4	4	0	7/1, 7/15	1	$50

22. THORACIC SURGERY

Olive View Sanatorium [1]	Olive View, Calif.	J. Skillen	420	.....	...	..	3	0	0	Varies	1+	$250
Norwich State Tuberculosis Sanatorium (Uncas-on-Thames)	Norwich, Conn.	R. G. Urquhart	383	.....	...	..	2	0	0	7/1	2	$175
City of Chicago Municipal Tuberculosis Sanitarium	Chicago	R. M. Davison	255[b]	.....	...	..	1	1	0	1/1	1-2	$100
Sanatorium Division of the Boston City Hospital	Boston	H. Binney	150	.....	4	..	1	0	0	1/1	1	$150
University Hospital *[1]	Ann Arbor, Mich.	J. Alexander	502	1,014	25	13	1	1	4	7/1	1-4	$25
Barnes Hospital *	St. Louis	E. A. Graham	314	.....	42	17	0	0	7	7/1	1-2	$125
Hudson County Tuberculosis Hospital	Jersey City, N. J.	F. Bortone	140	200	4	0	..	..	..	.....	...	.....
Kings County Hospital *	Brooklyn	R. Harloe	281[b]	466	...	...	1	0	0	7/1	1	$100
Edward J. Meyer Memorial Hospital *	Buffalo	(Combined with Surgery)										
Herman M. Biggs Memorial Hospital [1]	Ithaca, N. Y.		170	15	7	5	1	0	0	12/1	1	$100
Triboro Hospital	Jamaica, N. Y.	D. A. Mulvihill and H. W. Louria	(See Tuberculosis)				2	2	0	1/1, 7/1	1-2	$50
Mount Morris Tuberculosis Hospital	Mount Morris, N. Y.	E. F. Butler	.....	.....	3	3	1	..	..	7/1	1-2	$150
Bellevue Hospital *[1]	New York City	J. B. Amberson	(Combined with Tuberculosis)									
Metropolitan Hospital *[1]	New York City	S. Thompson	194	1,407	14	7	1	0	0	7/1	1+	$75
Homer Folks Tuberculosis Hospital	Oneonta, N. Y.	J. M. Chamberlain	197	25	4	4	..	1	0	Varies	...	$150
Sea View Hospital [1]	Staten Island, N. Y.	L. R. Davidson	436	.....	37	11	3	1	0	1/1, 7/1	2	$150
North Carolina Baptist Hospital *	Winston-Salem, N. C.	H. H. Bradshaw	240	.....	22	4	1	0	0	7/1	1-5	$42
City Hospital *[1]	Cleveland	S. O. Friedlander	.....	.....	...	..	1	0	0	7/1	1	$90
University of Oregon Medical School Hospitals and Clinics *	Portland, Ore.	R. Matson	233	5,801	29	20	1	2	0	7/1	3	$50
Muirdale Sanatorium	Wauwatosa, Wis.	J. D. Steele	226	.....	...	..				(See Tuberculosis)		

23. TRAUMATIC SURGERY

Morrisania City Hospital	New York City	G. E. Milani	2,672	15,005	120	5	1	1	..	1/1, 7/1	1	$18
Charleston General Hospital *	Charleston, W. Va.	H. A. Swart	1,178	5,690	15	5	2	..	..	7/1	1-3	$25

24. TUBERCULOSIS

Los Angeles Sanatorium [1]	Duarte, Calif.	J. Rosenblatt	303	3,842	41	13	2	0	0	1/1	1+	$100
Arroyo Del Valle Sanatorium	Livermore, Calif.	C. Bush	532	786	34	8	1	0	0	7/1	1+	$140
Barlow Sanatorium [1]	Los Angeles	H. W. Bosworth	171	1,428	2	1	2	0	0	7/1	1	$100
Los Angeles County Hospital *[1]	Los Angeles	C. Howson	1,110	2,685	361	134	3	0	0	Varies	1+	$10
Pottenger Sanatorium and Clinic [1]	Monrovia, Calif.	F. M. Pottenger	231	1,876	16	4	0	1	0	7/1	1	$50
Bret Harte Sanatorium	Murphys, Calif.	P. P. Smart	320	44	4	..	1	0	0	7/1	2	$150
Olive View Sanatorium [1]	Olive View, Calif.	J. D. Davis	1,56[6]	.....	65	22	..	2	0	Varies	1+	$115
San Diego County General Hospital *	San Diego, Calif.	R. S. Schneiders	249	2,5.8	52	25	1	0	0	7/1	1	$115
San Francisco Hospital *[1]	San Francisco	S. J. Shipman	874	.....	...	..	0	2	0	7/1	1+	.....
Santa Clara County Hospital *	San Jose, Calif.	L. Ianne.a	265	6,407	..	..	1	0	0	7/1	1+	$150
Fairmont Hospital of Alameda County [1]	San Leandro, Calif.	H. G. Trimble	541	1,721	88	36	1	0	0	7/1	1	$175
Denver General Hospital *	Denver	C. L. Lincoln	1,879	1,524	37	7	1	0	0	7/1	1	$50
National Jewish Hospital [1]	Denver	C. J. Kaufman	444	4,252	28	19	3	0	0	1/1, 7/1	3	$100
Sanatorium of the Jewish Consumptives' Relief Society	Spivak, Colo.	A. Rest	367	1,643	27	13	4	0	0	Varies	1+	$100
Undercliff, Meriden State Tuberculosis Sanatorium	Meriden, Conn.	.....	373	2,095	68	8	2	0	0	7/1, 10/1	1-2	$75
Norwich State Tuberculosis Sanatorium (Uncas-on-Thames)	Norwich, Conn.	H. B. Campbell	692	.....	94	31	2	0	0	7/1	1	$75
Laurel Heights State Tuberculosis Sanat.	Shelton, Conn.	E. J. Lynch	708	1,426	76	33	1	0	0	7/1	1-2	$75
Gaylord Farm Sanatorium	Wallingford, Conn.	D. R. Lyman	334	2,800	3	1	2	0	0	Varies	1+	$100

Numerical and other references will be found on page 1344.

24. TUBERCULOSIS—(Continued)

	Chief of Service	Inpatients Treated *	Outpatient Visits	Deaths	Autopsies	Residents	Assistant Residents	Fellows	Service Begins	Length of Service (Years)	Beginning Stipend
Tuberculosis .Sanatorium (Glen Dale, Md. P. O.)	Washington, D. C.	D. L. Finucane	1,213	.....	146	69	1	0	0	7/1	1	$50
University of Chicago Clinics *	Chicago	R. G. Bloch	.....	592	7	5	1	5	0	7/1	1-2	None
Macon County Tuberculosis Sanatorium [1]	Decatur, Ill.	D. F. Loewen	172	2,994	6	4	1	0	0	1/1	1-3	$100
Peoria Municipal Tuberculosis Sanatorium [1]	Peoria, Ill.	M. Pollak	242	2,866	18	11	0	2	0	7/1	1-3	$125
Rockford Municipal Tuberculosis Sanatorium	Rockford, Ill.	W. J. Bryan	261	.....	25	12	1	0	0	7/1	1-3	$150
Boehne Tuberculosis Hospital [1]	Evansville, Ind.	P. D. Crimm	399	1,672	39	39	2	0	0	Varies	1-2	$175
Indianapolis City Hospital *	Indianapolis	J. Stygall	201	3,231	65	32	1	0	0	7/1	1	$41.64
Sunnyside Sanatorium	Indianapolis	F. L. Jennings	179	748	32	14	1	0	0	7/1	1-2	$150
State Sanatorium [1]	Oakdale, Ia.	J. H. Peck	301	1,015	58	35	1	0	0	Varies	1+	.....
Western Maine Sanatorium [1]	Greenwood Mountain,	L. Adams	309	679	40	14	1	0	0	Varies	1+	.....
Baltimore City Hospitals *	Baltimore	H. V. Langeluttig	586	.....	170	61	1	0	0	7/1	1	$58.34
Sanatorium Division of Boston City Hospital	Boston	J. A. Foley	1,110	.....	168	43	0	4	4	Varies	1	$117
North Reading State Sanatorium	N. Wilmington, Mass.	C. C. MacCorison	344	3,003	14	3	1	0	0	Varies	1	.....
Rutland State Sanatorium	Rutland, Mass.	E. B. Emerson	555	1,511	65	24	1	0	0	7/1	1	$150
Norfolk County Hospital	S. Braintree, Mass.	N. R. Pillsbury	301	2,270	25	16	2	0	0	Varies	1	$150
Middlesex County Sanatorium [1]	Waltham, Mass.	S. H. Remick	680	17,386	94	47	1	0	0	Varies	1	$150
Belmont Hospital [1]	Worcester, Mass.	R. Baker	346	3,113	33	20	2	0	0	Varies	1-3	$133
University Hospital *[1]	Ann Arbor, Mich.	J. Barnwell	.....	816	7	5	1	0	0	7/1	1-4	$25
American Legion Hospital [1]	Battle Creek, Mich.	W. L. Howard	332	.....	32	..	..	..	..	.....	...	....
Herman Kiefer Hospital	Detroit	E. J. O'Brien and B. H. Douglas *	1,966	31,886	257	86	7	0	0	7/1	1-3	$175
Michigan State Sanatorium	Howell, Mich.	G. L. Leslie	602	880	48	6	1	0	0	7/1 or 8/1	1	$125
Ingham Sanatorium	Lansing, Mich.	C. J. Stringer	357	5,690	30	14	1	1	0	7/1	1-2	$100
Morgan Heights Sanatorium	Marquette, Mich.	R. F. Berry	141	900	11	2	1	0	0	8/1	1-2	$150
William H. Maybury Sanatorium [1]	Northville, Mich.	H. S. Willis	1,563	.....	104	66	5	0	0	Varies	2	$150
Oakland County Tuberculosis Hospital	Pontiac, Mich.	F. MacGinnis	531	3,131	52	10	2	0	0	7/1	1-4	$150
Nopeming Sanatorium [1]	Nopeming, Minn.	A. T. Laird	557	2,474	51	35	2	0	0	1/1	1-2	$150
Glen Lake Sanatorium	Oak Terrace, Minn.	E. S. Mariette	1,132	7,174	104	64	1	0	0	Varies	1	.....
Mississippi State Sanatorium [1]	Sanatorium, Miss.	H. Boswell	758	1,681	46	14	3	0	0	7/1	2-3	$100
Kansas City Municipal Tuberculosis Hospital	Kansas City, Mo.	O. C. Heyer	416	884	59	27	1	0	0	2/1	1-3	$100
Robert Koch Hospital	Koch, Mo.	G. D. Kettelkamp	1,181	.....	207	97	9	0	0	7/1	1+	$100
Homer G. Phillips Hospital *	St. Louis	D. Myers	289	341	93	15	1	0	0	7/1	1-3	$75
Mount St. Rose Sanatorium	St. Louis	J. L. Mudd	307	.....	59	15	1	0	0	7/1	1	$150
New Jersey Sanatorium for Tuberculous Diseases	Glen Gardner, N. J.	A. J. Stolow	740	2,830	9	4	3	4	0	Varies	1+	$100
Hudson County Tuberculosis Hospital and Sanatorium	Jersey City, N. J.	B. S. Pollak	1,097	14,958	134	24	4	3	0	7/1	1+	.....
Essex Mountain Sanatorium	Verona, N. J.	B. M. Harmon	879	8,506	178	28	1	0	0	Varies	1+	$200
Albany Hospital *[1]	Albany, N. Y.	C. Erickson	242	.....	43	25	1	0	0	7/1	Varies	$25
Montefiore Hospital Country Sanatorium	Bedford Hills, N. Y.	M. Pinner	538		1	0	3	0	0	1/1, 7/1	1+	$100
Kings County Hospital *	Brooklyn	C. E. Hamilton	1,163[b]	9,494	....	..	3	0	0	7/1	1	$100
Kingston Avenue Hospital [1]	Brooklyn	F. Murray	213	.....	....	..	1	1	0	1/1, 7/1	1	$18
Edward J. Meyer Memorial Hospital *	Buffalo	J. H. Donnelly	553	3,050	100	63	1	0	0	7/1	3	$50
Nassau County Sanatorium	Farmingdale, N. Y.	J. C. Walsh	325	5,312	64	29	2	0	0	7/1	1	$150
Hermann M. Biggs Memorial Hospital [1]	Ithaca, N. Y.	J. K. Deegan	480	6,115	40	30	..	..	..	.....	...	.....
Triboro Hospital	Jamaica, N. Y.	R. Bennett and H. M. Riggins	1,145	.....	100	47	1	1	0	1/1, 7/1	1-2	$50
Mount Morris Tuberculosis Hospital	Mt. Morris, N. Y.	N. S. Lincoln	282	5,385	37	21	3	0	0	7/1	1-2	$150
Bellevue Hospital *[1]	New York City	J. B. Amberson	2,980	564	....	..	17	0	0	.....	...	.....
Lenox Hill Hospital *[1]	New York City	G. Thorburn	152	3,246	....	..	1	0	0	7/1	1	$50
Metropolitan Hospital *[1]	New York City	G. G. Ornstein	932	2,918	219	94	1	6	0	7/1	1+	$100
Montefiore Hospital for Chronic Diseases *[1]	New York City	M. Pinner	524	2,806	82	47	1	2	0	1/1, 7/1	1-1½	....
Riverside Hospital	New York City	M. Taschman	789	.....	182	14	7	0	0	7/1	1	$100
Homer Folks Tuberculosis Hospital	Oneonta, N. Y.	R. Horton	546	5,921	42	27	2	1	0	7/1	1+	$150
Municipal Sanatorium [1]	Otisville, N. Y.	J. P. Dworetzky	941	.....	5	2	7	0	0	1/1, 7/1	1-2	$120
Iola-Monroe County Tuberculosis Sanatorium [1]	Rochester, N. Y.	E. Bridge	699	17,824	79	46	6	0	0	7/1	1-2	$150
Sea View Hospital [1]	Staten Island, N. Y.	G. G. Ornstein	3,633	.....	504	139	21	0	0	1/1, 7/1	1	$100
Trudeau Sanatorium [1]	Trudeau, N. Y.	F. H. Heise	380	.....	5	..	3	0	0	Varies	1+	None
Grasslands Hospital *	Valhalla, N. Y.	W. G. Childress	293	1,003	95	58	3	3	0	1/1, 7/1	1-3	$117.50
Jefferson County Sanatorium [1]	Watertown, N. Y.	S. E. Simpson	131	2,919	12	8	1	0	0	7/1	1-3	$100
North Dakota State Tuberculosis Sanatorium [1]	San Haven, N. D.	W. L. Wallbank	576	.....	46	27	..	..	..	.....	...	.....
Hamilton County Tuberculosis Sanatorium [1]	Cincinnati	J. H. Skavlem	1,126	.....	201	87	4	6	0	7/1	1+	.....
City Hospital *[1]	Cleveland	J. C. Placak	1,288	1,727	217	59	2	0	0	7/1	1	$60
Franklin County Sanatorium [1]	Columbus, Ohio	M. D. Miller	581	1,138	105	31	3	0	0	7/1	1+	$125
Sunny Acres, Cleveland Tuberculosis Sanatorium [1]	Warrensville, Ohio	R. H. Browning	815	.....	13	8	3	3	0	7/1	1+	$150
Eagleville Sanatorium for Consumptives [1]	Eagleville, Pa.	A. J. Cohen	382	6,952	34	4	2	0	0	Varies	1+	$125
Germantown Dispensary and Hospital *	Philadelphia	F. M. Mechedran	190	.....	....	..	1	0	0	7/1	1-3	$50[c]
White Haven Sanatorium	White Haven, Pa.	F. A. Craig	517		77	21	2	0	0	Varies	1+	.....
State Sanatorium	Wallum Lake, R. I.	U. E. Zambarano	967	6,620	92	28	5	0	0	Varies	1+	$150
Pine Breeze Sanatorium	Chattanooga, Tenn.	J. F. Hamilton	649	2,802	58	12	1	0	0	7/1	1-2	$150
Davidson County Tuberculosis Hospital	Nashville, Tenn.	R. R. Crowe	650	9,297	94	27	2	0	0	7/1	1-3	$150
Woodmen of the World War Memorial Hospital	San Antonio, Tex.	C. J. Koerth	199	.....	9	5	2	0	0	Varies	1+	.....
King County Tuberculosis Hospital	Seattle, Wash.	P. H. Narodick	435	2,966	30	22	1	0	0	7/1	1-3	$125
Hopemont Sanitarium [1]	Hopemont, W. Va.	D. Salkin	875	1,100	74	31	7	0	0	7/1	1+	$175
Wisconsin State Sanatorium	Statesan, Wis.	R. H. Schmidt, Jr.	339	.....	34	22	2	0	0	Varies	1+	$150
Muirdale Sanatorium	Wauwatosa, Wis.	A. V. Cadden	1,110	.....	141	33	4	4	0	7/1	1+	$265

25. UROLOGY

Revision of list is now taking place in collaboration with the American Board of Urology

Hillman Hospital *	Birmingham, Ala.	W. F. Scott	451	55,455	39	14	1	0	0	7/1	1	....
Los Angeles County Hospital *[1]	Los Angeles	J. Negley	2,279	13,950	190	107	6	0	0	1/1, 7/1	3	$10
White Memorial Hospital *	Los Angeles	R. W. Barnes	531	9,076	19	8	1	0	0	7/1	1-3	$80
San Francisco Hospital *[1]	San Francisco	C. M. Johnson and J. R. Dillon	600	.....	....	..	0	2	0	7/1	1	....
Stanford University Hospitals *[1]	San Francisco	J. R. Dillon	456	10,630	11	4	0	1	0	7/1	1	$25
University of California Hospital *[1]	San Francisco	F. Hinman	427	13,933	10	6	1	0	0	7/1	1	$25
New Haven Hospital *[1]	New Haven, Conn.	C. Deming	524	2,570	35	18	1	0	0	7/1	1+	*
Gallinger Municipal Hospital *	Washington, D. C.	W. P. Herbst	701	.....	247	33	1	0	0	7/1	1	....
St. Vincent's Hospital *	Jacksonsonville, Fla.	R. B. Meiver	317	.....	34	10	1	0	0	7/1	1	$75
Grady Hospital *	Atlanta, Ga.	M. K. Bailey and E. Floyd	535	12,554	45	9	2	2	0	7/1	1	$40
Michael Reese Hospital *[1]	Chicago	A. E. Jones	375	2,324	21	12	1	1	0	1/1	1-2	$50
Presbyterian Hospital *	Chicago	H. L. Kretschmer	785	7,812[a]	11	7	1	0	0	7/1	1	$50
St. Luke's Hospital *	Chicago	H. Culver	614	2,252	20	10	1	0	0	7/1	1-3	$25

Numerical and other references will be found on page 1344.

25. UROLOGY—(Continued)

	Chief of Service	Inpatients Treated*	Outpatient Visits	Deaths	Autopsies	Residents	Assistant Residents	Fellows	Service Begins	Length of Service (Years)	Beginning Stipend
University of Chicago Clinics *	Chicago.... C. B. Huggins	270	5,351	4	3	0	1	1	7/1	1-2	None
Indianapolis City Hospital *	Indianapolis.... W. P. Morton	571	5,934	46	25	1	0	0	7/1	1+	$41.64
University Hospitals *[1]	Iowa City.... N. G. Alcock	1,530	2,220	86	44	1	0	0	7/1	1	$20.83
Charity Hospital *[1]	New Orleans....	3,715	34,520	124	43	3	6	0	7/1	1-3	$25
Touro Infirmary *	New Orleans.... E. Burns	592	5,809	14	10	1	0	0	7/1	1	$25
Johns Hopkins Hospital *	Baltimore.... H. H. Young	1,027	7,759	35	19	1	2	0	7/1, 9/1	1-4	....
Beth Israel Hospital *	Boston....	359	812	..	..	1	0	0	7/1	2-3	$39.58
Boston City Hospital *	Boston.... H. H. Howard	577	19,608	41	6	1	1	0	Varies	1+	$50
Lahey Clinic [7]	Boston.... E. E. Ewert	400	6,000	..	..	0	0	1	Quart.	2	....
Massachusetts General Hospital *	Boston.... G. G. Smith	470	14,542	23	12	1	2	0	.....	..	....
Massachusetts Memorial Hospital *	Boston.... S. N. Vose	412	2,426	9	6	1	0	0	7/1	1	$50
University Hospital *[1]	Ann Arbor, Mich.... E. M. Nesbit	1,193	8,325	..	..	1	2	0	7/1	1-4	$25
City of Detroit Receiving Hospital *[1]	Detroit.... E. G. Martin and W. E. Keane	637	5,889	46	20	1	1	0	7/15	1-2	$108.33
Harper Hospital *	Detroit.... F. H. Cole	510[b]	2,149[b]	18	9	0	1	0	7/1	1	$50
Henry Ford Hospital *	Detroit.... J. K. Ormond	527	12,511	16	8	1	1	0	7/1	3	$130
Eloise Hospital and Infirmary *[1]	Eloise, Mich.... W. L. Sherman	479	1,440	58	33	1	1	0	7/1	1	$94.58
University Hospitals *	Minneapolis.... C. D. Creevy	701	3,858	29	23	0	0	2	7/1	1-3	$50
Mayo Foundation	Rochester, Minn.... W. F. Braasch and G. J. Thompson	(See data below)									
Anchor Hospital *	St. Paul.... F. E. B. Foley	437	2,740	39	32	1	0	0	7/1	1	$50
Kansas City General Hospital *	Kansas City, Mo.... R. L. Hoffman	393	1,731	37	26	1	0	0	7/1	1-2	$50
St. Louis City Hospital *[1]	St. Louis.... G. Carroll	637[b]	3,086[b]	...	..	1	0	0	7/1	1	$100
St. Mary's Group of Hospitals *	St. Louis.... C. E. Burford	504	3,160	27	15	0	1	0	7/1	3	$25
Atlantic City Hospital *	Atlantic City, N. J.... C. H. D. Shivers	211	15,420	5	4	0	0	1	6/1	2	....
Bayonne Hospital and Dispensary *	Bayonne, N. J....	424	635	7	2	1	1	0	1/1, 7/1	1	....
Jersey City Hospital *[1]	Jersey City, N. J.... E. Daly	723	14,801	15	8	1	1	0	1/1, 7/1	1	....
Newark City Hospital *	Newark, N. J.... C. O'Crowley	523	.....	37	2	1	0	0	7/1	1+	....
Albany Hospital *[1]	Albany, N. Y.... J. E. Heslin	686	.....	20	16	1	1	0	7/1	2+	$25
Kings County Hospital *	Brooklyn.... C. S. Cochrane	2,228	4,749	...	..	1	1	0	7/1	2	$18
Long Island College Hospital *	Brooklyn.... F. L. Senger	592	4,074	23	..	1	1	0	7/1	1	$22.50
Buffalo General Hospital *	Buffalo.... F. J. Parmenter	633	.....	11	..	1	0	0	7/1	1	$25
Edward J. Meyer Memorial Hospital *	Buffalo.... E. M. Watson	311	5,856	33	16	1	0	0	7/1	3	$50[c]
Queens General Hospital *[1]	Jamaica, N. Y.... F. G. Riley	700	4,659	28	21	1	1	0	7/1	1	$18
Bellevue Hospital *[1]	New York City.... H. M. Jeck	1,332	432	...	..	1	0	0	.....	..	....
Metropolitan Hospital *[1]	New York City.... S. Carleton	360	4,609	34	17	1	0	0	7/1	1+	$75
Morrisania City Hospital *	New York City.... J. Duff	855	4,460	45	12	1	3	0	1/1, 7/1	2	$18
New York City Hospital *	New York City.... T. J. Kirwin	272	2,885	31	7	1	0	0	7/1	1	$50
New York Hospital *	New York City.... B. O. Lowsley	432	10,468	18	11	..	..	..	.....	..	....
New York Polyclinic Medical School and Hospital *	New York City.... J. F. McCarthy	308	4,056	15	1	..	..	..	.....	..	....
New York Post-Graduate Medical School and Hospital *	New York City.... J. A. Hyams	494	8,856	14	4	1	2	0	1/1, 7/1	2	None
Presbyterian Hospital *[1]	New York City.... G. Cahill	1,090	.....	24	8	1	5	0	1/1, 7/1	3	$20.83
Roosevelt Hospital *	New York City.... S. A. Belsler	460	6,264	12	7	1	1	0	7/1	2	....
St. Luke's Hospital *	New York City.... H. G. Bugbee	455	4,486	...	..	1	0	0	7/1	1	$25
Strong Memorial and Rochester Municipal Hospitals *	Rochester, N. Y.... W. W. Scott	663	7,359	...	..	1	1	0	7/1	4	$41.66
Sea View Hospital [1]	Staten Island, N. Y.... A. J. Greenberger	330	.....	5	0	1	0	0	1/1, 7/1	1	$100
Duke Hospital *[1]	Durham, N. C.... E. P. Alyea	653	5,664	8	6	1	1	0	7/1	1-2	$41
Watts Hospital *[7]	Durham, N. C....	343	457	...	..	1	0	0	7/1	1	....
City Hospital *[1]	Cleveland.... H. Trattner	345	4,221	32	18	1	0	0	7/1	1	$65
Cleveland Clinic Foundation Hospital *	Cleveland.... W. E. Lower	666[b]	11,949[b]	...	..	0	0	4	7/1	1-3	$65
University Hospitals *[1]	Cleveland.... J. J. Joelson	771	9,179	18	7	1	0	0	7/1	2	$25
Starling-Loving University Hospital *	Columbus, Ohio.... W. N. Taylor	400[b]	3,826[b]	...	..	1	1	0	7/1	...	$25
University of Oregon Medical School Hospitals and Clinics *[1]	Portland, Ore.... J. G. Strohm	463	6,408	26	16	0	1	0	7/1	3	$80
Graduate Hospital of the University of Pennsylvania *	Philadelphia.... J. C. Birdsall and W. Mackinney	192	6,497	13	5	1	0	0	7/1	2	None
Hospital of the University of Pennsylvania *	Philadelphia.... A. Randall	471	3,903	14	7	1	0	0	9/1	2	None
Pennsylvania Hospital *	Philadelphia.... L. Herman	461	6,556	14	6	2	0	0	7/1	1-3	$30
Presbyterian Hospital *[17]	Philadelphia.... J. C. Birdsall	321	10,715	21	19	1	0	0	9/1	1	None
Mercy Hospital *	Pittsburgh.... E. J. McCague	591	.....	17	..	1	0	0	9/1	1	....
Parkland Hospital *	Dallas, Tex.... I. A. Folsom	382	1,113	21	9	1	0	0	7/1	1	$25
University of Virginia Hospital *	Charlottesville, Va.... S. Yest	473	3,647	24	10	1	1	1	7/1	1	$25
State of Wisconsin General Hospital *[1]	Madison.... I. R. Sisk	720	300	20	14	1	2	0	7/1	3	$25
Milwaukee County Hospital *[1]	Wauwatosa, Wis.... R. S. Irwin	418	6,804	39	5	1	1	0	7/1, 7/15	1	$50

Mayo Foundation Fellowships—The Mayo Foundation for Medical Education and Research, Rochester, Minnesota; D. C. Balfour, director; three-year fellowships, beginning quarterly, leading to the degree of M.S. or Ph.D. with field named from the University of Minnesota: in Anesthesia, Dermatology and Syphilology, Internal Medicine, Neurology and Psychiatry, Neurosurgery, Obstetrics and Gynecology, Ophthalmology, Orthopedic Surgery, Otolaryngology, Pathology, Pediatrics, Physical Medicine, Plastic Surgery, Proctology, Radiology, Surgery, Urology; stipend $900 per year, (clinical fellowships including pathology and radiology—268).

a. Compensation arranged by medical school and hospital.
b. As reported in 1940.
c. In lieu of maintenance.
d. Additional teaching material in outside clinics.
e. Central Free Dispensary, Chicago.
f. Includes two fellowships in gastroenterology.
g. Affiliated with Falk Clinic, Pittsburgh.
h. Clinical data includes neurosurgery.
j. Outpatient and home delivery service only.
k. Assistant residents serve four months.
m. Obstetrical training at Herman Kiefer Hospital, Detroit.
n. Training in Gynecology at City of Detroit Receiving Hospital.
o. Training in Gynecology at Barnes Hospital, St. Louis.
p. House staff includes 8 interns.
q. Includes 9 months at Chicago Lying-In Hospital.
r. Separate residencies of eighteen to thirty-six months also available.
s. Appointments made every two months.
u. Affiliated with Washington University Clinics.
v. March-November 1941.
w. In affiliation with Northwestern University and Passavant Hospital.
x. Additional surgical material at Worcester Hahnemann Hospital.
1. Residencies open to women.
2. Approved by the Board as offering satisfactory one year training.
3. Approved by the Board as offering satisfactory two year training.
4. Approved by the Board as offering satisfactory three year training.
5. Includes orthopedics.
6. Inpatients: Numbers refer to total inpatients treated in specialty. Obstetrical admissions do not include newborns. In pathology and anesthesiology total hospital admissions are used.
7. Data as reported in 1940.
8. Includes neurosurgery.
9. Includes affiliate service at South Bend Medical Laboratory, St. Joseph Hospital, South Bend, Elkhart General Hospital, Elkhart, and St. Joseph's Hospital, Mishawaka.
10. Affiliated with Free Hospital for Women, Brookline, Mass.
11. Approved by the Board as offering satisfactory one year training.
12. Approved by the Board as offering satisfactory two year training.
13. Approved by the Board as offering satisfactory three year training.
14. Medical and surgical pediatrics included in statistical data.
15. Represents training acceptable to Board in (1) radiology, (2) roentgenology, (3) therapeutic radiology or (4) diagnostic roentgenology.
16. Affiliated with Pima County Hospital, Tucson.
17. Includes acceptable affiliate assignment at Urologic Clinic, Phila.
18. Affiliated with Northwest Clinic, Minot.
19. Includes Neurology.
20. Includes Bradford Memorial Hospital for Babies, Children's Hospital of Texas, and Freeman Memorial Children's Clinic, Dallas, Texas.

APPROVED EXAMINING BOARDS IN MEDICAL SPECIALTIES

In 1933 the Council on Medical Education and Hospitals of the American Medical Association was authorized by the House of Delegates of the American Medical Association to formulate standards and approve examining boards in the medical specialties. The resolution urged that the machinery of the American Medical Association, including the publication of the American Medical Directory, be used in furthering the work of boards accredited under this plan. Examining and certifying boards had already been established in ophthalmology, otolaryngology, obstetrics and gynecology, and dermatology and syphilology, but it was believed that there was need for a universal standard governing all fields of medical practice in order that properly qualified physicians might readily be recognized.

Standards governing the approval of specialty boards were compiled by the Council and approved by the House of Delegates in 1934, and have since been revised. The Essentials of Approved Examining Boards in Specialties include, in addition to regulations relating to the organization and operation of specialty boards, the minimum qualifications deemed necessary for certification as a specialist; namely, graduation from a medical school approved by the Council on Medical Education and Hospitals, an internship in a hospital approved by the Council, and a period of specialized training in a selected field.

Eleven boards have been organized since 1933. These boards, together with the four previously operating, are now fully approved by the Council and represent the specialties of anesthesiology, dermatology and syphilology, internal medicine, neurologic surgery, obstetrics and gynecology, ophthalmology, orthopedic surgery, otolaryngology, pathology, pediatrics, plastic surgery, psychiatry and neurology, radiology, surgery and urology. The American Board of Internal Medicine by special examination certifies specialists in allergy, cardiovascular disease, gastroenterology and tuberculosis. Similarly the American Board of Surgery certifies specialists in proctology.

A key number has been assigned to each approved specialty board, such as A.B.1, and the biographic records of physicians published in the American Medical Directory include by this means reference to those certified by these boards.

Early in 1939 there was published by the Advisory Board for Medical Specialties the first edition of the Directory of Medical Specialists containing the names and biographic data of all men certified by the several specialty boards as well as information regarding the organization and functions of these boards. The second edition appeared early in 1942 and contains the names of about 18,000 certified specialists, including their biographic records and hospital and teaching appointments.

Each of these boards has published a booklet containing a brief statement regarding its organization, personnel, purposes and qualifications for eligibility for certification. The data contained in these announcements are reproduced herewith.

The national emergency will greatly curtail the future training of young men to meet the requirements of the specialty boards, since no provision has been made for military deferment beyond the internship. In February 1942 the Advisory Board for Medical Specialties and the Council on Medical Education and Hospitals of the American Medical Association appointed a committee to formulate plans to submit to the military authorities whereby a percentage of interns may be given an opportunity to continue their training in the special fields of medicine. This committee was informed that until the immediate needs of the Army for medical personnel were satisfied it would be difficult to expect deferment of young men for graduate training. However, later when the Medical Corps of the Army is more adequately filled it is hoped that consideration will be given to the deferring of certain men for graduate training.

The specialty boards have not lowered their requirements because of war conditions, but the majority of them will grant some credit for military service. In response to a recent inquiry the specialty boards have indicated such allowances as follows:

Anesthesiology.—Credit of one year toward the five year period regardless of the type of service. If assigned to the specialty in the armed forces of the United States, applicants may receive a maximum credit of one year toward the two year specific training period.

Dermatology and Syphilology.—If a candidate is called into active military or naval service he will receive full credit for dermatologic training already finished at that time. The extent to which medical service in the Army or Navy will count toward the required training in dermatology and syphilology will be decided in each case on evidence submitted by the candidate. The board will accept not more than one year of military or naval medical service as part of the required two years' experience in dermatology and syphilology to be eligible for examination. A candidate who is called into military or naval service after completion of three years of training in dermatology and syphilology may take the complete examination of the board, and if this examination is satisfactory a certificate will be issued after satisfactory completion of two years of further approved experience in dermatology and syphilology.

Internal Medicine.—One year of military service in the United States Army, Navy or Marine Corps may be applied toward the satisfaction of one year of graduate training, or one year of the practice of the specialty of internal medicine. This ruling admits of a substitution of military or naval service for one year of the three years of graduate training required, or one year of the two years of the practice of internal medicine.

Neurologic Surgery.—Each case will be determined individually.

Obstetrics and Gynecology.—An applicant entering military service and assigned to work in general surgery under conditions satisfactory to the board may receive credit toward the required special training up to a maximum of six months, applicable toward his three years of special training. Emergency military service may be counted as years of practice.

Ophthalmology.—Every case will be considered individually on its own merits.

Orthopedic Surgery.—During the present national emergency, the board will recognize up to a maximum of one year for work done in the orthopedic division of the Army or Navy. If the foregoing fills out the three years of special required training for examination, further time spent in the orthopedic division of the armed forces, up to a maximum of one year, will be credited toward the practice requirement.

Otolaryngology.—Each case will be determined on its merits.

Pathology.—Each applicant from the military services will be considered individually and as much credit as possible will be

given for training and experience in the military services, depending on the station, supervision and equipment.

Pediatrics.—One year of credit will be allowed for one year of military service toward the required two years of specialized practice and/or study. Military service cannot be substituted for preliminary training.

Plastic Surgery.—Each case will be determined on its merits.

Psychiatry and Neurology.—Credit will be granted for military service to the extent of one year to the prescribed three year training period. It will also count for whatever experience is necessary to complete the two to three year requirement.

Radiology.—In the current emergency, one year of military service spent in a radiologic department in the United States Army, Navy or Marine Corps may be applied toward the satisfaction of one year of graduate training.

Surgery.—Full credit will be allowed for work done in the surgical division of a regularly constituted Army or Naval Hospital.

Urology.—Routine credit for military service will not be given. Each case will be determined on its merits.

AMERICAN BOARD OF ANESTHESIOLOGY, Inc.

JOHN S. LUNDY, President, Rochester, Minn.
HENRY S. RUTH, Vice President, Merion Station, Pa.
PAUL M. WOOD, Secretary-Treasurer, 745 Fifth Avenue, New York.
CHARLES F. MCCUSKEY, Glendale, Calif.
EMERY A. ROVENSTINE, New York.
HARRY BOYD STEWART, Tulsa, Okla.
RALPH M. TOVELL, Hartford, Conn.
RALPH M. WATERS, Madison, Wis.
PHILIP D. WOODBRIDGE, Philadelphia.

HISTORY

The plan for organization was devised to conform with those of other examining boards in medical specialties, by a committee representing the American Society of Anesthetists, Inc., the American Society of Regional Anesthesia, Inc., and the Section on Surgery of the American Medical Association. These organizations adopted the tentative plans submitted, and the formation of the American Board of Anesthesiology, Inc., an affiliate of the American Board of Surgery, Inc., was completed on June 2, 1937. The Advisory Board for Medical Specialties, and the Council on Medical Education and Hospitals of the American Medical Association approved the affiliation in 1938.

In 1941 the Advisory Board for Medical Specialties approved the establishment of the American Board of Anesthesiology, Inc., as a separate major board, with the unanimous consent of the participating societies and the surgical boards which are members of the Advisory Board.

Diplomates of this board will be designated "A.B. 13" in the Directory and Biographical Departments of the American Medical Association.

PERSONNEL

The original members of the examining board were elected by the American Society of Regional Anesthesia, Inc., the American Society of Anesthetists, Inc., and the Section on Surgery of the American Medical Association. Each cooperating society had three representatives, thus giving national and regional representation in the composition of the board.

With the establishment of a separate major board, the members now represent the Section on Anesthesiology of fthe American Medical Association, the American Society of Anesthetists, Inc., the Section on Anesthesia of the Southern Medical Association and the New England Society of Anesthesiology.

The term of membership is for six years. Each cooperating association has the nominating power of its representatives, subject to the approval of the board.

PURPOSES

1. To establish criteria of fitness to be designated a specialist in the practice of anesthesiology.

2. To improve educational facilities and practice in medical schools and hospitals, and furnish lists of these, together with lists of individual instructors who give adequate instruction and training in anesthesiology.

3. To arrange, control, and conduct examinations to determine the qualifications, and grant a certificate to those who voluntarily apply and meet the required standards. Such certification will serve to provide the public and the professions with the opportunity to select the best available service. (Conferring of degrees is a prerogative of the universities, and the Board of Anesthesiology makes no attempt to grant degrees, regulate or control the practice of anesthesiology in any way whatsoever, by license or restriction.)

VALUE OF CERTIFICATE

The organizations which participate in forming this board and sponsoring the activities as well as other societies or institutions, attach considerable importance to its certificate. The medical and lay public, as well as hospital directors, utilize the certification by this board in determining those who are well qualified as specialists in anesthesiology.

Although the Directory of the American Medical Association indicates those practicing in the various specialties the lists of holders of certification by specialty boards are available in the form of the Directory of Medical Specialists.

The American Board of Anesthesiology will cooperate with institutions and individuals in preparing plans for instruction in anesthesiology and in offering suggestions for the organization of new departments in the specialty.

QUALIFICATIONS FOR ELIGIBILITY TO CERTIFICATION

A. *General.*—1. An applicant's moral and ethical standing in the profession must be satisfactory to the entire board. The board must be assured that the applicant is engaged in the practice of anesthesiology as a specialty and that he intends to continue to be so engaged.

2. Membership is required in the American Medical Association or membership in such other medical societies as are recognized for this purpose by the Council on Medical Education and Hospitals of the American Medical Association. Membership in other societies shall not be required.

3. Practice must be *limited* to anesthesiology.

4. In exceptional instances the board may, in its discretion, accept for examination candidates who have met all the preliminary requirements and have clearly demonstrated their identity as an anesthetist over a period of years but whose formal training does not comply with the full requirements to be exacted in the future.

B. *Professional Standing.*—1. An applicant must be a graduate of a grade A school in the United States or Canada recognized by the Council on Medical Education and Hospitals of the American Medical Association, or a graduate of an approved foreign school.

2. Satisfactory evidence must be supplied of completion of an internship of not less than one year in a hospital approved by the same council, or its equivalent in the opinion of the board.

3. An applicant must establish in a manner satisfactory to the Board of Anesthesiology: that he is a physician duly licensed by law to practice medicine; that he is of high ethical and professional standing, and that he has received adequate special training in anesthesiology.

C. *Special Training and Practice.*—1. Before certification the candidate must have had an active experience limited to anesthesiology of not less than five (5) calendar years (including period of training).

2. The board recommends the inclusion of at least two years of carefully supervised instruction in the clinical phases of anesthesiology in hospital clinics, dispensaries, and diagnostic laboratories recognized by the Council on Medical Education and Hospitals of the American Medical Association as competent in the teaching and practice of anesthesiology. In addition, instruction in anatomy, physiology, pharmacology, biochemistry and other basic sciences which are necessary to the proper understanding of the problems involved in the specialty of anesthesiology is required.

(The board believes that for those entering the specialty after Jan. 1, 1944, the facilities for special training in anesthesiology will be available and such training will be sufficiently standardized that special training in anesthesiology may be interpreted to include after that date:

(*a*) A period of study, after the internship, of not less than three years in clinics, dispensaries, hospitals, and laboratories recognized by the Council on Medical Education and Hospitals of the American Medical Association as competent to provide a satisfactory training in the special field of anesthesiology.)

EXAMINATIONS

The qualifying examination will be divided into Part I, written, Part II, oral, and Part III, practical.

PART I

1. An applicant, to be eligible for Part I, must meet all requirements and his credentials must be approved by the board.

2. At the board's discretion a candidate may apply for certification and may take the written examination on basic science and clinical practice on the completion of two years of his courses of special training. Subsequently it shall be necessary for him to await the prescribed length of time to proceed with further examinations. Candidates who successfully pass Part I examinations (and satisfy the time requirement) proceed automatically to Part II examinations.

3. Part I may be given simultaneously in several centers, throughout the United States, which the board may determine suitable for the purpose.

PART II

1. In order to be eligible for Part II, a candidate must have successfully passed Part I in addition to having met the necessary requirements and having presented definite evidence of an adequate experience in anesthesiology satisfactory to the board.

2. It is probable that Part II examinations will be held near the time and at the place of the annual convention of the American Medical Association. Later, however, as the demand grows, it may be necessary to establish subsidiary centers where this part may be held.

PART III

1. It is believed that the practical examination in this field is slightly different from that in most specialties. The examiners will observe the work of the candidates in their own or similar operating room surroundings, their relations to other staff members, and investigate their professional standing.

CONDUCT OF EXAMINATION

Carefully conducted and thorough examinations will be required of candidates. The aim will be to avoid unduly exacting standards above present facilities for study and practice in anesthesiology, and on the other hand, to prevent laxity, which would nullify the main purpose of the certificate. Thus the type of the examination will depend on a careful review of the work done, years of practice, special courses of study, and professional standing of the applicant.

Written examinations will cover such topics as anatomy, biochemistry, physiology, pharmacology, pathology, physical diagnosis, therapeutics, clinical practice, and public health in relation to anesthesiology.

Oral examinations will cover topics in the foregoing list, especially as to their clinical application and such questions on physics and mechanics as are important in anesthesiology, especially dealing with electrical theories and the proper handling of high pressure gases and flammable agents.

Practical demonstrations will be required of the management of the candidate's clinical practice *in his local surroundings*. This may include inspection of clinical records, records of departmental activities, library facilities, available apparatus, and demonstrations of application of anesthetic agents, methods and all techniques included in anesthesiology.

GRADES

A candidate must receive a passing average for each part, to be entitled to certification. No candidate shall pass a part who does not receive a grade of 60 per cent or more in each subject of such part. An average grade of 75 per cent shall be required for passing.

A candidate who fails in his examination in Part I will have his papers reviewed by the entire board and will be entitled to reexamination at yearly intervals for two consecutive years without further payment of fee. The board may, however, for sufficient reason, deny a candidate the privilege of reexamination.

Applicants who fail to exercise the examination privilege within three (3) years of the date of filing the application are required to file a new application and pay a new application fee.

FEES

The fee shall be $75. Twenty-five dollars shall be paid on filing the application (of which sum $15 will be returned if the candidate is not accepted for examination) and the remaining $50 shall be paid before taking the examinations.

This board is a nonprofit organization, all fees to be used to extend the existing facilities for training in anesthesiology, after deducting necessary expenses for maintenance of the office, and the conducting of examinations. The board reserves the right to increase the fee when found necessary.

REVOCATION OF CERTIFICATE

All certificates issued by the board shall be subject to revocation by the board at any time, in case it shall determine in its sole judgment that a candidate who has received a certificate either was not properly qualified to receive it or has become disqualified since its receipt.

ADDITIONAL INFORMATION

Every candidate applying for certification *must personally appear before the board* before being certified.

Application blanks must be made on special blanks which may be procured from the Secretary of the American Board of Anesthesiology. They must be completely and accurately filled out, accompanied by the other required credentials, and filed with the secretary of the board at least ninety days prior to the date of examination.

The Council cannot make any eligibility rulings. These are made only by the Committee on Preliminary Examinations and the Committee on Requirements and Credentials after reviewing the candidate's formal application. Applications cannot be considered for classification and action by these committees unless accompanied by an application fee of $25.00, $10.00 of which is not returnable.

Application blanks contain the following statement:

"I hereby make application to the American Board of Anesthesiology, Inc., for the issuance to me of a Certificate of Qualification as a Specialist in Anesthesiology and for examination relative thereto, all in accordance with and subject to its rules and regulations, and enclose fee of seventy-five dollars ($75.00).[1] I agree to disqualification from examination or from the issuance of a Certificate of Qualification or to surrender of such certificate as directed by the board in the event that any of the statements hereinafter made by me are false or in the event that any of the rules governing such examinations are violated by me or in the event that I did not comply with *or shall violate* any of the provisions of the Certificate of Incorporation or Constitution and By-Laws[2] of the American Board of Anesthesiology, Inc., or both, as then constituted. I agree to hold the American Board of Anesthesiology, Inc., its members, examiners, officers and agents free from any damage or complaint by reason of any action they, or any of them, may take in connection with this application, such examinations, the grade or grades given with respect to any examination, or the failure of said board or corporation to issue to me such Certification of Qualification."

Proper forms for making application and other information will be furnished by the secretary-treasurer.

AMERICAN BOARD OF DERMATOLOGY AND SYPHILOLOGY

HOWARD FOX, President, New York.
FREDERICK D. WEIDMAN, Vice President, Philadelphia.
C. GUY LANE, Secretary-Treasurer, 416 Marlboro Street, Boston.
CHARLES C. DENNIE, Kansas City, Mo.
JOSEPH GARDNER HOPKINS, New York.
HENRY E. MICHELSON, Minneapolis.
PAUL A. O'LEARY, Rochester, Minn.
FRANCIS E. SENEAR, Chicago.
JESSE BEDFORD SHELMIRE, Dallas, Texas.

ORGANIZATION

At the 1931 meeting of the American Dermatological Association, a committee was appointed to determine the advisability of forming an American board for the certification of competent practitioners in this specialty similar to boards created by the ophthalmologists, the otolaryngologists and by the obstetricians and gynecologists. A similar committee was appointed by the Section on Dermatology and Syphilology of the American Medical Association at its meeting in the same year. A favorable report was rendered by each committee at the 1932 meeting of each of the above organizations.

The American Dermatological Association voted to accept the report of this committee, and the president appointed the fol-

1. This may be paid as follows: $25 with application ($10 registration fee not returnable) and $50 before examination.

2. Ignorance of the provisions of the Certificate of Incorporation and of the Constitution and By-Laws is not considered by the board to be a valid excuse for violations.

lowing four members to represent the association on the newly formed American Board of Dermatology and Syphilology:

Dr. Jay F. Schamberg, Philadelphia.
Dr. Howard Fox, New York.
Dr. Harold N. Cole, Cleveland.
Dr. Arthur W. Stillians, Chicago.

The Section on Dermatology and Syphilology of the American Medical Association also accepted the report of its committee and the chairman appointed the following members to serve as its representatives:

Dr. Howard Morrow, San Francisco.
Dr. William H. Mook, St. Louis.
Dr. George M. MacKee, New York.
Dr. C. Guy Lane, Boston.

The first meeting of the board was held in New Orleans on May 11, 1932, at which time officers were elected. At another meeting held on Nov. 11, 1932, in Philadelphia the organization was completed and resolutions were adopted concerning the proper procedure to be followed by the board. On Nov. 29, 1932, the board was incorporated under the laws of the state of Delaware.

In 1937 the American Academy of Dermatology and Syphilology was formed, and in November 1939 a plan was finally approved whereby the board would be composed of three representatives from each national dermatologic society, viz., the American Dermatological Association, the Section on Dermatology and Syphilology of the American Medical Association, and the American Academy of Dermatology and Syphilology.

These representatives are the *members* of the board. *Diplomate* refers to a physician who fulfils the requirements of the board and is awarded a certificate.

PURPOSES

The board has been established primarily to determine the competence of physicians who specialize in dermatology and syphilology. It will therefore establish minimum standards of education and training, examine applicants and certify properly qualified specialists in this field, prepare lists of those qualified and arrange for the publication of such lists. Because of its interest also in the fulfillment of these standards, it will attempt to stimulate the development of adequate training facilities, investigate institutions and individuals planning to train specialists, and lend its aid to the approval of those institutions and individuals offering adequate training in the specialty. The board, in addition, will always be glad to advise physicians desiring to enter this special field of medicine.

REQUIREMENTS FOR CERTIFICATION

I. General Requirements

1. High ethical and professional standing.

2. Graduation from a medical school recognized by the Council on Medical Education and Hospitals of the American Medical Association.

3. Satisfactory completion of an internship of not less than one year in a hospital approved by the same Council.

4. A license to practice medicine.

5. Membership in the American Medical Association or membership in a similar society recognized as having the same purpose as the American Medical Association.

6. Citizenship in the United States or citizenship—meaning native citizens—in Canada and Cuba.

II. Special Requirements

Applicants for certification by the board are classed in two groups as follows:

Group A consists of physicians who have limited their practice mainly to dermatology and syphilology for ten or more years, including a period of training satisfactory to the board. This group will, in all probability, be abolished in 1949.

Group B consists of physicians who have practiced dermatology and syphilology at least five years, including their period of training. For such physicians who will be examined up to Jan. 1, 1945, the board will require two years of full-time planned training in clinical dermatology including adequate instruction in the following subjects as related to the skin: histopathology, mycology, allergy and physics of physical therapy.

III. Future Special Requirements

For candidates beginning their training after Jan. 1, 1940, who will appear for examination subsequent to Jan. 1, 1945, additional requirements are effective in accordance with the program recommended to the various specialty boards by the Advisory Board for Medical Specialties. These minimum requirements of special training for admission to examination are as follows:

1. A period of study, after the internship, of not less than three years in clinics, dispensaries, hospitals or laboratories recognized by the Council on Medical Education and Hospitals of the American Medical Association and approved by the American Board of Dermatology and Syphilology as competent to provide a satisfactory training in dermatology and syphilology. This period of specialized training shall include:

(*a*) Graduate training in the basic medical sciences which are necessary for the proper understanding and treatment involved in this specialty.

Instruction in the following fundamental subjects as related to the skin is deemed advisable by the board: embryology, histology, chemistry, physiology, bacteriology, mycology, parasitology, pathology, immunology, serology, pharmacology and materia medica, and physics of physical therapy.

(*b*) An active experience of not less than eighteen months in hospitals, clinics, dispensaries or diagnostic laboratories recognized by the same Council and approved by the American Board of Dermatology and Syphilology as competent to provide an adequate preparation.

(*c*) Examinations, written and oral, in the clinical, laboratory and public health aspects of dermatology and syphilology.

2. An additional period of not less than two years of study and/or practice.

Therefore, for certification by this board, candidates beginning their training after Jan. 1, 1940 must plan for a three years course of systematic training.

APPLICATION AND FEE

The board desires to appraise the candidate's educational opportunities (premedical, medical and dermatologic), the character of the men under whom he has worked, his hospital and teaching positions, original investigations, contributions to dermatologic literature, membership in medical societies and local and general reputation.

For this purpose, application must be made on a special blank, which may be obtained from the secretary. No application will be considered unless made on the regular application blank. Applications should be filed early in order to obtain full advantage of the sets of histopathological slides which are available through the Army Medical Museum in Washington. The completed application should be sent, at least two months before the date of examination, to the secretary of the board, together with the required reprints, photographs and the fee of $50. This fee will not be returned, and no application will be considered until the fee is received. This fee has been carefully computed and is used entirely for administrative purposes. Members of the board do not receive any compensation except for actual expenses connected with holding the examinations.

Make checks payable to American Board of Dermatology and Syphilology, Inc.

EXAMINATIONS

Applicants classified in group B will be required to pass a written examination. This written examination on clinical and laboratory subjects including cutaneous pathology will be held simultaneously at stated intervals in different parts of the country, approximately two months before the oral examination.

Applicants classified in either Group A or Group B will be required to pass an oral, clinical and laboratory examination. This examination will be conducted in a clinic or hospital ward where individual cases will be discussed with each candidate as well as various subjects related to the skin such as histopathology, mycology, allergy and physics of physical therapy. The board reserves the right to add to this list other subjects within the field of dermatology and syphilology.

Any candidate for a certificate may take the *written* examination at the next regular examination of the board after he has completed three full years of training in the specialty.

Examinations are designed to test the candidate's fitness to practice dermatology and syphilology as a specialty. The board will try especially to ascertain the breadth of his clinical experience, his knowledge of recent literature of dermatology and syphilology and his general qualifications as a specialist in this branch of medicine.

Whenever an applicant fails to pass the examination, the board, if requested, will make suggestions as to suitable courses of instruction for the purpose of overcoming deficiencies in the applicant's knowledge of the specialty.

Except in special circumstances, applicants shall take the examination within the year following the filing of application and the deposit of the fee.

The oral examination will be held near the time and place of the annual meeting of the American Academy of Dermatology and Syphilology. This examination will be held only at the time of regular meetings of the boards.

REEXAMINATIONS

If the candidate fails or is "conditioned" in an examination he will be admitted to a second examination after one year, but within three years, and must give sixty days' notice of his intention to appear for reexamination. If a candidate who has failed or has been conditioned does not appear for reexamination before the expiration of three years, he will be required to make a new application and pay an additional fee of $35 before reexamination.

A candidate having failed twice must file a new application and pay an additional fee of $35.

CERTIFICATES

A certificate will be issued to each candidate who meets the requirements of the board, to the effect that the holder of the certificate has had adequate training in dermatology and syphilology and has successfully fulfilled the requirements of the board.

It is expected that medical schools, hospitals and physicians, as well as the lay public, will utilize the certificate from this board as a proof of adequate preparation in the field of dermatology and syphilology, and of fitness of candidates for positions under their control. For this purpose lists of those holding certificates from the board will be available for inspection and will be published from time to time in the Directory of Medical Specialists. Diplomates will be identified in the Directory of the American Medical Association.

A certificate granted by this board does not of itself confer or purport to confer, any degree, or legal qualifications, privileges, or license to practice dermatology or syphilology. The board does not intend to limit or interfere with the professional activity of any duly licensed physician. Its aim is to improve the standards of practice of dermatology and syphilology by encouraging improvement in the opportunities for and quality of training for specialists in this field of medicine, and to certify, as specialists those who voluntarily comply with the requirements of the board.

Upon the board rests the responsibility of determining the standards of knowledge to be acquired, while upon the candidate will always rest the responsibility of acquiring the knowledge to fulfill these standards.

Certificates will be issued only to physicians in the United States and its possessions, in Canada and in Cuba.

REVOCATION OF CERTIFICATES

The certificates issued by the board are issued subject to the provisions of the certificate of incorporation and of the by-laws, and each certificate is subject to revocation in the event that: (*a*) the issuance of such certificate or its receipt by the physician so certified shall have been contrary to any of the provisions of the certificate of incorporation or by-laws; or (*b*) the physician so certified shall not have been eligible to receive such certificate, irrespective of whether or not the facts constituting him so ineligible were known to or could have been ascertained by the directors of the board at the time of the issuance of such certificate; or (*c*) the physician so certified shall have made any misstatement of fact in his application for such certificate or in any other statement or representation to the board or its representatives; or (*d*) the physician so certified shall have been convicted by a court of competent jurisdiction of a felony or of any misdemeanor involving, in the opinion of the board of directors, moral turpitude in connection with his practice of medicine; or (*e*) the physician so certified shall have had his license to practice medicine revoked or shall have been disciplined or censored as a physician by any court or other body having proper jurisdiction and authority.

TRAINING FACILITIES

Institutions in which the graduate training facilities for the full three-year training program in dermatology and syphilology have been approved by the American Board of Dermatology and Syphilology and the Council on Medical Education and Hospitals of the American Medical Association.

CREDIT FOR MILITARY SERVICE

(1) If a candidate is called into active military or naval service he will receive full credit for dermatological training already finished at that time; (2) the extent to which medical service in the army or navy will count towards the required *training* in dermatology and syphilology will be decided in each case upon evidence submitted by the candidate; (3) the board will accept not more than one year of military or naval medical service as part of the required two years' *experience* in dermatology and syphilology to be eligible for examination; (4) a candidate who is called into military or naval service after completion of three years of training in dermatology and syphilology may take the complete examination of the board, and that if this examination is satisfactory a certificate will be issued after satisfactory completion of two years of further approved experience in dermatology and syphilology.

PUBLICATIONS OF THE BOARD

1. Booklet of Information.

2. Opportunities for Graduate and Postgraduate Students in Dermatology and Syphilology, containing a list of places where instruction may be obtained, and details about these places. (In preparation.)

3. The complete register of diplomates is published in the Directory of Medical Specialists, which can be obtained from the Columbia University Press, New York City. $7.00

4. Syllabus of graduate training.

(*a*) To inform the student physician, intending to specialize, of the field to be covered in his preparation and the methods by which his preparation can be accomplished.

(*b*) To aid the medical schools and the dermatologic department of medical schools and hospitals by outlining the scope of teaching deemed advisable for specialization in dermatology and syphilology.

Further information may be obtained from the secretary-treasurer.

INSTRUCTIONS TO APPLICANTS

Fill out application blank in detail.

Enclose fee of $50. (Make check payable to the American Board of Dermatology and Syphilology, Inc.)

Include photographs as directed on application blank.

Enclose reprint of each published paper, if possible.

Send completed applications and above items to the secretary.

Please indicate under No. 13 on the application blank as complete data as possible about your training in dermatology and syphilis. Indicate the month and year, if possible, or at least the number of months of the various parts of your training and also whether full time or part time. If part time indicate whether one-half day, six days a week or three days a week, etc. If dispensary service is considered as part of your training, please indicate details here as well as under No. 14.

In No. 16 indicate clearly when you limited your practice to dermatology and syphilis.

If your training and your practice overlap, please explain under No. 19.

AMERICAN BOARD OF INTERNAL MEDICINE, Inc.

ERNEST E. IRONS, Chairman, Chicago.
REGINALD FITZ, Vice Chairman, Boston.
WILLIAM S. MIDDLETON, Secretary-Treasurer; WILLIAM A. WERRELL, Assistant Secretary-Treasurer, 1301 University Ave., Madison, Wis.
DAVID P. BARR, New York.
WILLIAM J. KERR, San Francisco.
WILLIAM S. McCANN, Rochester, N. Y.
JONATHAN F. MEAKINS, Montreal, Quebec.
JOHN H. MUSSER, New Orleans.
GEORGE GILL RICHARDS, Salt Lake City.

". . . the membership of the board shall be maintained at the ratio of five members from the American College of Physicians and four members from the Section on the Practice of Medicine of the American Medical Association and that at least three of the members of the board from the American College of Physicians and two members of the board from the Section on the Practice of Medicine of the American Medical Association shall be of professorial rank in approved medical schools of the United States or Canada."

"Sec. 5, Art. 5, Articles of Incorporation."

HISTORY AND AUTHORITY FOR ORGANIZATION

The American College of Physicians, through its Board of Regents at the annual session in Philadelphia on April 30, 1935, adopted a resolution for the establishment, with the Section on the Practice of Medicine of the American Medical Association, of an "American Board for the Certification of Internists." This board to consist of nine members; six to be appointed by the American College of Physicians, and three by the Section on the Practice of Medicine of the American Medical Association.

At the annual meeting of the American Medical Association at Atlantic City, N. J., June 10-14, 1935, the Section on the Practice of Medicine adopted the following resolution: "Resolved, that a committee of three, including a chairman, be appointed by the chairman of the Section on the Practice of Medicine, to discuss with a committee from the American College of Physicians, ways and means by which an examining board, comparable to such boards already existing in certain specialties, may be set up for the purpose of certification of specialists in internal medicine.

President James Alexander Miller of the American College of Physicians appointed the following as representatives of the College on the joint committee: David P. Barr, St. Louis; Jonathan C. Meakins, Montreal; William S. Middleton, Madison; John H. Musser, New Orleans; O. H. Perry Pepper, Philadelphia; G. Gill Richards, Salt Lake City. William J. Kerr, Chairman of the Section on the Practice of Medicine of the American Medical Association, appointed Walter L. Bierring, Des Moines; Reginald Fitz, Boston, and Ernest E. Irons, Chicago, as representatives of that section. Walter L. Bierring was named as chairman of the joint committee.

The joint committee of nine members held its first meeting in Philadelphia Dec. 14, 1935. At this meeting a resolution was adopted to submit an application in due form to the Advisory Board for Medical Specialties requesting authority to organize the American Board of Internal Medicine and for admission to membership in the said advisory board. In the preliminary draft of the constitution and by-laws, the ratio of the representation on the board was changed to five members from the American College of Physicians and four members from the Section on the Practice of Medicine of the American Medical Association.

On Feb. 16, 1936 a subcommittee consisting of Walter L. Bierring, Reginald Fitz, Ernest E. Irons, Jonathan C. Meakins and William S. Middleton held a meeting in the Palmer House, Chicago, to formulate and complete the details of the application to be presented to the executive committee of the Advisory Board for Medical Specialties, which body approved the organization of the American Board of Internal Medicine and directed that articles of incorporation be completed and filed.

In keeping with the ratio of membership to be maintained on the American Board of Internal Medicine, James Alexander Miller, President, officially designated David P. Barr, Jonathan C. Meakins, William S. Middleton, O. H. Perry Pepper and G. Gill Richards as representatives from the American College of Physicians, and William J. Kerr, Chairman, designated Walter L. Bierring, Reginald Fitz, Ernest E. Irons and John H. Musser to represent the Section on the Practice of Medicine of the American Medical Association.

The articles of incorporation were filed for record with the county recorder of Polk County at Des Moines, Polk County, Iowa, Feb. 28, 1936.

At the annual session of the American College of Physicians, Detroit, March 1-6, 1936, the Board of Regents officially approved the American Board of Internal Medicine. On May 10, 1936 the Advisory Board for Medical Specialties, meeting in Kansas City, gave its final approval to the American Board of Internal Medicine, granting at the same time admission to membership in the Advisory Board for Medical Specialties.

The Council on Medical Education and Hospitals of the American Medical Association approved the board at its meeting May 12, 1936. The Section on the Practice of Medicine of the American Medical Association gave its final approval May 13, 1936. The first meeting of the board was held at the Palmer House, Chicago, June 14-15, 1936.

Subspecialty certification was authorized by the Advisory Board for Medical Specialties and the Council on Medical Education and Hospitals of the American Medical Association, Feb. 16, 1941. The mechanism for instrumenting this program has been perfected through the cooperation of advisory committees in allergy, cardiovascular disease, gastroenterology and tuberculosis.

PURPOSE

1. To improve the standards of practice and the quality of service in the field of internal medicine.

2. To determine the eligibility of candidates who request admission to examination in accordance with regulations published herein.

3. To conduct examinations of eligible candidates who seek qualification by this board.

4. To issue certificates of qualification to all those meeting the requirements of the board.

5. To aid in improving the educational opportunities for the training of internists.

6. To administer the regulations which pertain to certification in the medical subspecialties referred to herein.

VALUE OF CERTIFICATION

1. Evidence of special training in the broader aspects of the field of internal medicine and recognition of qualifications for the practice of internal medicine as a specialty.

2. A requirement for admission to Fellowship in the American College of Physicians.

QUALIFICATIONS OF CANDIDATES

Each applicant for admission to the examination shall be required to present evidence that he has met the following standards:

1. GENERAL.

A. Satisfactory moral and ethical standing in the profession.

B. Membership in the American Medical Association or, by courtesy, membership in such Canadian or other medical society or societies as are recognized for this purpose by the Council on Medical Education and Hospitals of the American Medical Association. Except as here provided, membership in other societies shall not be required.

2. PROFESSIONAL.

A. Graduation from a medical school of the United States or Canada approved by the Council on Medical Education and Hospitals of the American Medical Association.

B. Completion of an internship of not less than one year in a hospital approved by the same council.

C. In the case of an applicant whose training has been received outside of the United States and Canada, his credentials must be satisfactory to the aforenamed council and the Advisory Board for Medical Specialties.

3. SPECIAL TRAINING.

A minimum of five years must elapse after completion of a year of internship in a hospital approved for intern training before the candidate is eligible for admission to an examination.

A. Three years of this period must be devoted to special training in internal medicine. This requirement should include a period of at least several months of graduate work under proper supervision in anatomy, physiology, biochemistry, pathology, bacteriology or pharmacology, particularly as related to the practice of internal medicine. This work may be carried on in any domestic or foreign medical school or laboratory recognized by the Council on Medical Education and Hospitals of the American Medical Association as offering appropriate facilities for this type of postgraduate training; or it may include a period of at least two years of graduate work under proper supervision in internal medicine or in its restricted and specialized branches in any domestic or foreign hospital, clinic or dispensary, or under the immediate preceptorship of an internist recognized by the board as offering appropriate facilities for this type of postgraduate experience.

B. A period of not less than two years of special practice in the field of internal medicine or in its more restricted and specialized branches.

MEMORANDUM FOR THE GUIDANCE OF CANDIDATES

The American Board of Internal Medicine does not propose to establish fixed rules for the preliminary training of candidates for certification in this field. Broad general principles for training, however, may be outlined, although such suggestions as are made must of necessity be subject to constant changes reflecting the dynamic nature of the specialty.

1. A sound knowledge of physiology, biochemistry, pharmacology, anatomy, bacteriology and pathology in so far as they apply to disease is essential for continued progress of the individual who practices internal medicine. Such knowledge may be obtained in a number of ways:

A. By properly arranged and supervised graduate courses;

B. By the opportunities for study afforded by the appointment to a junior position in a department of physiology, biochemistry, pathology, etc. (see above) with attendance upon advanced lectures in the other subjects;

C. By advanced study in these subjects while an intern or resident medical officer, and by the application of the principles involved to patients under one's control;

D. By the detailed study, under supervision, of a problem or topic in medicine in which the student brings the basic facts of physiology, pathology, etc., into direct relation with the concrete clinical problem. The analysis of a problem with detailed knowledge of its fundamental pathologic or physiologic background does much to stimulate thoroughness, clear thinking and progress.

2. A portion of the written examination is designed to test the candidate's knowledge in these "preclinical" subjects and especially in their application to disease rather than their purely laboratory aspects.

3. The mere factual knowledge of medicine and its basic sciences is not sufficient. The candidate must have had training in their use in furthering his understanding in clinical medicine. This implies practical experience under the guidance of older men who bring to their clinical problems ripe knowledge and critical judgment. Preparation to meet this requirement adequately may be even more difficult to obtain than the so-called scientific training. It may, however, be acquired in the following ways:

A. By work in a well organized hospital outdoor clinic conducted by competent physicians;

B. By a prolonged period of resident hospital appointments likewise directed by skilled physicians;

C. By a period of training in intimate association with a well trained and critical physician who takes the trouble to teach and guide his assistant rather than to expect him only to carry out the minor drudgery of a busy practice.

4. The board does not consider it to the best interests of internal medicine in this country that rigid rules be formulated as to where or how the training outlined above is to be obtained. Medical teaching and knowledge are international. The opportunities of all prospective candidates are not the same. Some may have the opportunity of widening their knowledge by a period of study abroad. Others, at the other extreme, may be restricted to a comparatively narrow geographic area and their more detailed training must be obtained in short periods of good study scattered over a longer time. Although it is required that at least five years must elapse between the termination of the first intern year and the date when the candidate is eligible to take the examination, a longer period is advisable. The board wishes to emphasize that time and training are but a means to the end of acquiring a broadness and depth of knowledge of internal medicine which the candidate must demonstrate to the board in order to justify it in certifying that he is competent to practice internal medicine as a specialty. The responsibility of acquiring the knowledge as best he may rests with the candidate, while the responsibility of maintaining the standard of knowledge required for certification devolves on the board.

5. Applicants who graduated before the foundation of the American Board of Internal Medicine in 1936 will not be held to the strict interpretation of the published requirements in formal graduate training. Under such circumstances the board will accept the results of the examination as evidence of the qualifications for certification.

6. The board will recognize one year of basic science training which leads to a *higher degree* in the basic sciences, as one year of formal graduate training, whether taken previous to or subsequent to the first year of internship.

7. The board will recognize a second year of internship which is confined strictly to internal medicine as one year of the graduate training period.

8. The board will recognize one year of training in pediatrics, neurology or any medical subspecialty as one year of the graduate training period of three years as published herein.

9. In all instances the board will require a minimum of two years training in internal medicine.

10. In the current emergency the board will allow one year of military service in the United States Army, Navy, or Marine Corps to be applied toward the satisfaction of one year of graduate training, or one year of the practice of the specialty of internal medicine. This ruling admits of a substitution of military or naval service for only one year of the three years of graduate training, or one year of the two years of the practice of internal medicine as outlined in the published qualifications for admission to the examination of this board.

METHOD OF EXAMINATION

The examination required of candidates for certification as specialists in internal medicine will comprise Part I (written), and Part II (practical or clinical).

Part I. The written examination is to be held simultaneously in different sections of the United States and Canada on the third Monday of February and October of each year. This examination will be divided into a morning and an afternoon session of three hours each, and the two sessions A and B will include the following:

A. Question in applied physiology, anatomy, physiological chemistry, pathology, bacteriology and pharmacology as related to internal medicine as well as the cultural aspects of medicine.

B. Questions in general internal medicine.

The location of the written examination is determined by the number of candidates from any given area. In all instances, however, the board will make every effort to meet the convenience of all concerned with a minimum of expense and time.

All candidates must successfully pass the written examination before being admitted to the oral examination.

Part II. Candidates successful in the written tests will be eligible for the practical or clinical examination, which will be conducted by the members of the board near the time and place of the annual meeting of the American College of Physicians and of the American Medical Association and at such other times and places as the board may designate. This examination is conducted at the bedside, and each candidate will be assigned one or more patients in the hospital.

REEXAMINATIONS

1. Any candidate unsuccessful in the written examination may upon request repeat the examination after a period of two years. No additional fee is required for this examination. Any candidate unsuccessful in a second written examination may upon request repeat the examination after a further period of two years. A fee of $10 is required for admission to a third written examination.

2. Any candidates unsuccessful in the oral examination may upon request repeat the examination after a period of one year. The period of one year is construed as the interval between annual meetings of the American College of Physicians or annual meetings of the American Medical Association. No additional fee is required for this examination. Candidates unsuccessful in the second oral examination may, upon request, repeat the examination after a period of two more years. A fee of $10 is required for admission to the third oral examination.

APPLICATION

Candidates for examination shall make their application on a prescribed form which may be obtained from the office of the secretary-treasurer.

The application shall contain a record of the candidate's premedical and medical training as well as of internships, graduate study, hospital or dispensary staff appointments, teaching positions, membership in medical societies, medical papers published and the names of two well known internists to whom the board may refer for professional and character reference.

The application shall also be accompanied by one recent signed photograph mounted on the application, and the registration and examination fee of $40, which fee will cover both the written and practical examinations. An additional fee of $10 will be required when the certificate is issued.

CERTIFICATES

The certificate issued by the American Board of Internal Medicine shall be in such form as to comply with the articles of incorporation and the by-laws and shall be signed by the officers and members of the board, and shall bear the official seal of the board.

Certificates of the board will be issued to candidates who have satisfactorily completed the written and practical examinations, and been found qualified by the board to practice the specialty of internal medicine.

Subspecialty certification will be designated on the certificate.

CERTIFICATION IN MEDICAL SUBSPECIALTIES

In association with the advisory committees in allergy, cardiovascular disease, gastroenterology and tuberculosis, the American Board of Internal Medicine will:

1. Certify without examination candidates who have been certified by this board and who have been recommended by the advisory committee of the sub-specialty concerned for certification without examination.

2. Admit to further examination and certify if qualified, candidates who have been certified by this board and who have been recommended by the advisory committee of the sub-specialty concerned as eligible for admission to the examination.

3. Examinations for certification in the sub-specialties indicated will be conducted by guest examiners, nominated by the advisory committee concerned and selected by the American Board of Internal Medicine, at the time and place of the regular board examinations. A fee of $10 is required to meet the expense of this examination.

4. Candidates who have not been certified by the American Board of Internal Medicine are ineligible for admission to examination in any sub-specialty.

The American Board of Internal Medicine and members of advisory committees in the sub-specialties referred to herein, recognize the value of a broad general training in internal medicine before attempting to qualify in a sub-specialty of medicine. It is, therefore, agreed that all candidates shall first be certified by the American Board of Internal Medicine as a prerequisite for certification in a sub-specialty.

REVOCATION OF CERTIFICATES

The American Board of Internal Medicine shall have the sole power, jurisdiction and right to determine and decide whether or not the evidence or information placed before it is sufficient to constitute grounds for revocation of any certificate issued by this board, and the decision of the board in the premises shall be final.

All official correspondence should be addressed to the secretary-treasurer.

AMERICAN BOARD OF NEUROLOGICAL SURGERY, INC.

HOWARD C. NAFFZIGER, Chairman, San Francisco.
MAX M. PEET, Vice-Chairman, Ann Arbor, Mich.
R. GLEN SPURLING, Secretary-Treasurer, 404 Brown Building, Louisville, Ky.
PAUL C. BUCY, Chicago.
WINCHELL MCK. CRAIG, Rochester, Minn.
LEO M. DAVIDOFF, Brooklyn.
LOYAL DAVIS, Chicago.
TEMPLE FAY, Philadelphia.
GILBERT HORRAX, Boston.
R. EUSTACE SEMMES, Memphis, Tenn.
BYRON STOOKEY, New York.
WILLIAM P. VANWAGENEN, Rochester, N. Y.

ORGANIZATION

Recognizing the need for detailed training and special qualifications for the practice of neurological surgery, representatives of both the Society of Neurological Surgeons and the Harvey Cushing Society held an informal meeting in Chicago on March 27, 1939, to consider the advisability of the formation of a national certification board. Later the group was enlarged by representatives from the Section on Nervous and Mental Diseases of the American Medical Association, the Section on Surgery of the American Medical Association, the American Neurological Association, and the American College of Surgeons. Approval of the board by the Advisory Board for Medical Specialties and the Council on Medical Education and Hospitals of the American Medical Association was given. The American Board of Neurological Surgery was incorporated in the State of Delaware on Aug. 1, 1940.

The membership of the corporation was nominated as follows: five from the Society of Neurological Surgeons, three from the Harvey Cushing Society, one each from the American College of Surgeons, the Section on Nervous and Mental Disease of the American Medical Association, the Section on Surgery of the American Medical Association, and the American Neurological Association.

PURPOSES

A. To encourage the study, improve the practice, elevate the standards and advance the science of neurological surgery and thereby to serve the cause of public health.

B. To grant and issue to physicians duly licensed by law, certificates or other recognition of special knowledge in neurological surgery and to suspend and revoke the same.

C. Certificates granted or issued by the corporation shall not confer or purport to confer on any person any legal qualification, privilege or license to practice neurological surgery, nor purport to be issued under or in pursuance to or by virtue of any statutory or governmental sanction or authority.

D. To determine by examination, investigation and otherwise the fitness and competence of specialists in neurological surgery who shall apply for certificates and to prepare, provide, control and conduct examinations, written, oral and otherwise, for such purpose and to determine the results of such examination.

E. To furnish to the public, hospitals, medical schools, medical societies and practitioners of medicine and surgery lists of neurological surgeons who from time to time have been granted certificates by this corporation.

GENERAL REQUIREMENTS

A. General qualifications.

1. Satisfactory moral and ethical standing in the profession.

2. License to practice medicine.

3. Membership in the American Medical Association or, by courtesy, membership in such Canadian or other medical societies as are recognized for this purpose by the Council on Medical Education and Hospitals of the American Medical Association.

4. That the surgical activity of the applicant shall be limited to neurological surgery.

B. Professional education.

1. Graduation from a medical school of the United States or Canada recognized by the Council on Medical Education and Hospitals of the American Medical Association, or graduation from a foreign school which is acceptable to the American Board of Neurological Surgery, Inc.

C. Special training, to be effective Jan. 1, 1940.

1. Completion of a surgical internship of not less than one year in a hospital approved by the Council on Medical Education and Hospitals of the American Medical Association, or its equivalent in the opinion of the board.

2. A period of graduate study in a recognized graduate school of medicine of not less than three years beyond the intern year, or in an approved hospital or under a sponsorship acceptable to the American Board of Neurological Surgery, Inc., for the training of neurological surgeons. This period of special training shall be of such a character that the relation of the basic sciences of anatomy, physiology, pathology, bacteriology and biochemistry is emphasized. Knowledge of these sciences as applied to the practice of neurological surgery will be required in the examination.

3. An additional period of not less than two years in the practice of neurological surgery.

D. Certification without examination.

1. On invitation by the board and written application made within two years from Jan. 1, 1940, the following may be accepted as eligible for certification upon approval of the board of directors and on the production of evidence of satisfactory moral and ethical standing in the profession.

(*a*) Individuals of professorial rank in approved medical schools of the United States or Canada whose surgical practice is limited to neurological surgery.

(*b*) Those who have specialized in neurological surgery for ten years prior to Jan. 1, 1940.

APPLICATION BLANK AND FEE

Application must be made on the special form which may be procured from the secretary. The application and examination fee for candidates is $75 whether certified with or without examination. The completed application form should be returned to the secretary accompanied by an application fee of $25. When notified by the secretary that he is eligible for examination he shall send the examination fee of $50 to the secretary-treasurer at least two weeks before the date of examination. The application fee will be returned if the candidate is not accepted by the board for examination.

A candidate who has failed in one examination is eligible to reexamination in the subject, or subjects, in which he failed, within three years, on payment of a reexamination fee of $10. A candidate who has failed in one examination and who does not apply for reexamination within three years or a person who has applied within that time but who has failed a second time will be considered a new applicant.

EXAMINATIONS

Examinations will be held in the spring and fall of each year at or near the time and place of a national meeting at the discretion of the board. Examinations will be oral and based upon broad principles of neurological surgery. The subject

matter of the examination will be divided into six parts: (1) neuroanatomy and neurophysiology, (2) neuropathology and bacteriology, (3) ophthalmology and x-ray diagnosis, (4) neurosurgical problems, (5) organic neurology and (6) general surgery.

All communications should be addressed to the secretary-treasurer.

AMERICAN BOARD OF OBSTETRICS AND GYNECOLOGY, Inc.

WALTER T. DANNREUTHER, President, New York.
JOSEPH L. BAER, Vice President, Chicago.
LOUIS E. PHANEUF, Vice President, Boston.
PAUL TITUS, Secretary-Treasurer, 1015 Highland Bldg., Pittsburgh.
E. A. SCHUMANN, Philadelphia.
L. A. EMGE, San Francisco.
NORMAN F. MILLER, Ann Arbor, Mich.
WILLARD R. COOKE, Galveston, Texas.
F. BAYARD CARTER, Durham, N. C.

ORGANIZATION

In 1930 the American Association of Obstetricians, Gynecologists, and Abdominal Surgeons, the American Gynecological Society, and the Section on Obstetrics and Gynecology of the American Medical Association, each elected three Fellows to constitute the American Board of Obstetrics and Gynecology.

Dr. Walter T. Dannreuther of New York, Dr. Paul Titus of Pittsburgh and Dr. Grandison D. Royston of St. Louis were appointed to represent the American Association of Obstetricians, Gynecologists, and Abdominal Surgeons; Dr. Jennings C. Litzenberg of Minneapolis, Dr. Joseph L. Baer of Chicago, and Dr. E. A. Schumann of Philadelphia were appointed to represent the American Gynecological Society; Dr. Fred L. Adair of Chicago, Dr. R. D. Mussey of Rochester, Minn., and Dr. E. D. Plass of Iowa City were appointed to represent the Section on Obstetrics and Gynecology of the American Medical Association. Since formation of the board several of the original members have resigned and others have been duly appointed to fill their places.

The board was incorporated and organized and held its first meeting in September 1930. At that time the By-Laws were adopted and provision was made by resolutions for its proper functioning.

This board had been in the process of organization since 1927 and put into action a determined effort on the part of these three national organizations to improve the standards of practice of obstetrics and gynecology.

PURPOSES

First. To elevate the standards and advance the cause of obstetrics and gynecology.

Second. To determine the competence of practitioners professing to be specialists in obstetrics and gynecology.

Third. To arrange, control and conduct examinations to test the qualifications of voluntary candidates appearing before the board for certification as specialists in obstetrics and gynecology.

Fourth. To grant and issue certificates of qualification as specialists in the field of obstetrics and gynecology to candidates successful in demonstrating their proficiency.

Fifth. To serve the public, hospitals and the medical schools by preparing lists of specialists certified by the board.

These activities proceed from the certificate of incorporation in which it is stated that "the nature of the business and the objects or purposes proposed to be transacted, promoted and carried on by it" are as follows:

"To encourage the study, improve the practice, and advance the cause of obstetrics and gynecology, subjects which should be inseparably interwoven; and to grant and to issue to physicians duly licensed by law, certificates or other equivalent recognition of special knowledge in obstetrics and gynecology."

NO DEGREES OR LEGAL RESTRICTIONS

Each certificate granted or issued does not of itself confer or purport to confer upon any person any degree or legal qualifications, privileges or license to practice obstetrics or gynecology, nor does the board intend in any way to interfere with or limit the professional activities of any duly licensed physician. Its chief aim is to standardize qualification for specialists in obstetrics and gynecology, and to certify as specialists those who voluntarily appear before the board for such recognition and certification, according to its regulations and requirements.

VALUE OF CERTIFICATE

The national obstetrical and gynecological organizations, which have participated in the formation of the board and are sponsoring its activities, as well as other societies, attach considerable importance to its certificate. Both the medical and the lay public, including hospital directors, have come to utilize the certificate from this board freely as a means of determining who are well grounded as specialists in obstetrics and gynecology.

Lists of those holding certificates from this board who are limiting their practice to obstetrics and gynecology are published in the Directory of Medical Specialists; similar lists are published by the *American Journal of Obstetrics and Gynecology*, and also appear in the *American Medical Directory*. This latter indicates diplomates of this and other boards by means of numerical symbols appearing in the biographic records but does not give such special recognition to diplomates who are not members of the American Medical Association.

A joint directory of specialists certified by the fifteen major special boards was published in 1940 by the Advisory Board for Medical Specialties; a second edition appeared in February 1942, and a third is planned for publication in 1944. This board holds active membership in the Advisory Board for Medical Specialties.

This board, in cooperation with the Council on Medical Education and Hospitals of the American Medical Association, is conducting a survey of institutions providing acceptable residencies and internships in obstetrics and gynecology.

PREREQUISITES TO ELIGIBILITY

Each applicant before he shall become eligible to receive such certificate or other evidence of recognition:

1. Must have had conferred upon him a degree in medicine by an institution of learning approved by the Advisory Board for Medical Specialties and the Council on Medical Education and Hospitals of the American Medical Association.

2. Must establish in a manner satisfactory to the board of directors that he is a physician duly licensed to practice medicine.

a. That he is of high ethical and professional standing.

b. That he has received adequate training in obstetrics and gynecology as a specialty.

Each candidate should have certain fundamental knowledge of the basic essentials of anatomy, pathology, bacteriology, physiology, pharmacology, and therapeutics as related to the practice of obstetrics and gynecology. Clinical training should consist, subsequent to graduation, of at least one year's general rotating internship, and thereafter a special residency in obstetrics and gynecology for a period of at least three (3) years, not necessarily consecutive. The board accepts the fifth or "intern" medical school year required at some schools in lieu of the usual fifth or intern "clinical training" year following graduation. As a substitute for special training, service with a qualified obstetrician-gynecologist preceptor, preferably one who has been certified by the board, may be acceptable. The exact time basis for this has not been specified, and each case must be reviewed and decided individually by the credentials committee after the application is submitted in the regular manner. The time allowance for this type of training will vary with the amount of work done with the preceptor. Opportunity for personal responsibility during this period of training is highly desirable. At least a fundamental knowledge of both obstetrics and gynecology is essential regardless of whether a candidate's practice is limited to one or the other branch. As heretofore, all candidates will be required to stand examination in both branches of the specialty, regardless of the fact that the major part of their practice may be in one or the other branch of the specialty.

An applicant entering military service in the present national emergency and assigned to work in general surgery under conditions satisfactory to the credentials committee may receive credit toward the required special training up to a maximum of six (6) months, applicable toward his three years of special training. Emergency military service may be counted as years of practice.

3. Must make application for investigation of his credentials and a survey of his character.

4. Must assure the board that he is limiting his practice to obstetrics and/or gynecology and that he intends to continue to do so having limited for at least six (6) months before making application.

This board deprecates engagement in other fields of practice than that in which candidates profess to be specialists. The

board does not exclude from examination, however, obstetricians or gynecologists who practice abdominal surgery and urology in the female, as well as breast surgery, because of the correlation of these activities.

Emergency military service or any other similar patriotic service, such as work with Selective Service Boards, will not be construed as nonlimitation of practice in violation of the board regulations. Proof of this necessity must be shown.

The board has ruled that physicians who accept male patients in their private or other practice, for operative or other care, cannot be regarded as specialists in obstetrics and gynecology. Special certifying boards in general surgery and internal medicine have been organized and such individuals should apply to one of these boards.

5. Must have membership in the American Medical Association, or membership in such Canadian or other medical societies as are recognized for this purpose by the Council on Medical Education and Hospitals of the American Medical Association.

6. This board will no longer accept applicants for examination who are not full citizens of the United States or of Canada, though they be residents of either country. Applicants must have been certified by either the National Board of Medical Examiners or licensed to practice medicine in the United States or Canada by a state or provincial board of licensure. Notarized statements, *not* citizenship papers, must be furnished when the application is filed, attesting to the fact of full citizenship in the United States or Canada, if the applicant is foreign born.

Further, there will be required a probationary period of at least three (3) years from the date of licensure in the practice of medicine in these countries before such a candidate may be admitted to examination.

APPLICATION AND FEES

Application must be made on a special blank which will be furnished by the secretary's office, 1015 Highland Building, Pittsburgh, Pa., and must be forwarded with the other required credentials and the application fee to the secretary's office. The secretary cannot make any eligibility rulings. These are made only by the credentials committee after reviewing the candidate's formal application, which must be completely filled out and previously filed with the secretary.

Application fee.....$15.00

Make checks payable to American Board of Obstetrics and Gynecology. Not returnable.

(Applications will not be considered for classification and action by the credentials committee unless accompanied by the application fee.)

Applications and application fees must be in the office of the secretary at least ninety (90) days prior to the scheduled date of the examinations.

Applicants who fail to exercise the examination privilege within three (3) years of the date of filing the application are required to file a new application and to pay a new application fee.

Applicants declared ineligible for admission to examination may reopen their applications within one (1) year of the filing date without payment of an additional application fee.

Examination fee.....$85.00

(Payable when the candidate is notified of acceptance for examination. Not returnable after the candidate has been officially accepted by the credentials committee and notified to report for examination, except if the candidate is prevented from appearing for examination because of induction into military service.)

Total fee.....$100.00

The fees have been carefully computed on a basis of cost of examinations and are used entirely for administrative expenses. Examiners serve without compensation other than actual expenses.

All candidates must comply with board regulations in effect for the year in which the examination is taken, regardless of when the original application was filed.

REQUIREMENTS

The requirements for all candidates are uniform, as follows:

1. Completion of at least one year in a general rotating intern service in a hospital approved by the Council on Medical Education and Hospitals of the American Medical Association.

(A second year general internship is to be considered as one of a candidate's years of practice. No credit will be given toward special training during a second year general internship.)

2. A minimum of seven (7) years of practice after the intern year, including at least three (3) years of special training in approved institutions, or adequate preceptorship training in approved institutions or by approved individuals in obstetrics and gynecology satisfactory to the Board of Directors.

3. Limitation of practice to obstetrics and/or gynecology. The candidate's practice must have been so limited for a period of at least six (6) months prior to the date of making application.

4. Membership in the American Medical Association or membership in such Canadian or other medical societies as are recognized for this purpose by the Council on Medical Education and Hospitals of the American Medical Association is required.

5. This board will no longer accept applicants for examination who are not full citizens of the United States or Canada, though they be residents of either country. Foreign born applicants must have been certified by either the National Board of Medical Examiners or licensed to practice medicine in the United States or Canada by a state or provincial board of licensure. Notarized statements, not citizenship papers, must be furnished when the application is filed, attesting to the fact of full citizenship in the United States or Canada, if the applicant is foreign born.

(Emergency military service or any other similar patriotic service, such as work with Selective Service boards, etc., will not be construed as nonlimitation of practice in violation of the board regulation. Proof of this necessity must be shown. The same regulations as above, regarding emergency civilian practice, will be allowable for diplomates.)

EXAMINATIONS

Applicants not qualifying before the 1942 examinations, as well as those who have previously applied and been accepted for examination but who have failed until this time to appear, will be subject to the new plan of general grouping and uniform examination which went into effect after the final examination in June 1942. Former Group A candidates undergoing reexamination in Part II will not be required to take Part I.

All applicants accepted for examination will be required to attain a passing grade in both a written examination and a review of case records (Part I), before becoming eligible for the oral clinical, and pathological examination (Part II).

The next examination is scheduled for Saturday, Feb. 13, 1943. Application on an official application form, for admission to this examination must be filed in the office of the secretary with the application fee of fifteen dollars ($15) at least ninety (90) days prior to this date. Grades cannot be mailed from the secretary's office until about April 1, 1943.

Arrangements will be made for candidates to report in any convenient city where there may be a diplomate of this board to conduct or supervise the written examination which will be sent out under sealed cover from the board's office.

Applicants accepted for examination have three years from date of filing to appear for examination. After that time a new application with its fee is required.

Examination consists of:

1. A comprehensive written examination, given once yearly, including questions on both obstetrics and gynecology, as evidence of a fundamental knowledge of both branches is required of all candidates.

The filing of a total of twenty-five obstetric and gynecologic case reports, in condensed form: 5 cases may concern major illnesses not necessarily operative.

No candidate is eligible for the general oral clinical, and pathological examinations (Part II) until he has passed the written portion and his case reports have been found satisfactory. The passing grade for the written examination and case reports is 75 per cent, and a candidate whose grade in either or both falls below 75 per cent is conditioned. Either or both of these conditions must be removed before the candidate is eligible for Part II.

Reexamination for the removal of conditions in Part I may be taken at any regular Part I examination after one year but within three years after the first failure, without payment of an additional fee.

Candidates who successfully complete the Part I examination proceed automatically to the Part II examination held later in the year.

The general oral clinical, and pathological examinations given all candidates are conducted by the entire board and the assistant examiners near the time and place of the annual meeting of one or more of the national societies represented on this board, usually that of the American Medical Association.

Examination consists of:

1. Oral examination before from two to four examiners. An endeavor is made to adapt the details of the oral examination to each candidate's experience and practice, and the examination is particularly directed to ascertain his familiarity with recent obstetrical and gynecological literature, the breadth of his clinical experience, and his general qualifications as a specialist in obstetrics and gynecology.

2. Pathology examination. The candidate is expected to identify and discuss several obstetrical and gynecological pathologic specimens and histologic sections.

As heretofore, all candidates will be required to stand examination in both branches of the specialty, regardless of the fact that the major part of their practice may be in one or the other branch of the specialty.

Examiners report orally upon each candidate to the assembled board, after which the results of their examinations are considered jointly by the entire board and assistant examiners. After a general consideration of the details of the candidate's oral and pathology examinations, including a review of his capability and general adaptability, the candidate is passed or failed by the entire board. No conditions are given in Part II of the examination. When a candidate fails in Part II of the examination, he is not required to repeat Part I, but to take a reexamination in the oral clinical, and pathological portions only. Reexamination may be taken within three (3) years of the original examination or first failure without payment of an additional fee.

Candidates may be reexamined as often as they desire on satisfactory evidence of adequate additional preparation and payment of reexamination fee. A minimum of one year must elapse between examinations. The board may, at its discretion, deny the candidate the privilege of reexamination.

Candidates must reapply and pay a new fee following a second failure in either part of the board examinations, if they wish to appear again before the board.

CASE REPORTS

Case records to be submitted for reexamination will come under the new regulations.

A total of twenty-five obstetric and gynecologic case reports, in condensed form, are required; 5 cases may concern major illnesses, not necessarily operative.

These reports must be of cases treated within four (4) years of the date of the candidate's application. The number of cases from one's residency service should not be more than half the total number.

The group of reports must include a variety of material rather than a number of cases of one type.

These reports should be prepared in condensed form in line with the following items:

1. Hospital admission number and date, with identifying initials, or name, of each patient, and name of operator (candidate), at the top of the page.

2. (*a*) Preoperative diagnosis, and basis for this, in brief.
(*b*) Postoperative diagnosis, based on findings.

3. Nature of operation, omitting descriptive technical details, but including pathologist's findings on tissue removed.

Obstetric case reports should show:

(*a*) Date of first antepartum visit and any special features bearing on the case.

(*b*) The weight and condition of the child at birth and at time of discharge from the hospital.

Obstetric reports which omit measurements of the pelvic inlet and outlet will be considered incomplete.

4. Critical summary or analysis of cases, with critical deductions derived from correctness or incorrectness of diagnosis, operative findings, postoperative course, and from final results on discharges from hospital and at six months "follow-up" examination.

5. Two (2) separate index lists must accompany these reports, with verifications of these and of the fact that the candidate was the operator.

Preparation of Reports. These are not to be copied verbatim from hospital records, but must be sufficiently complete so that the examiner can evaluate the judgment of the candidate in his choice of procedure.

Each report must include the items listed above, and amplified below:

1. Heading each separate case report must be the hospital number, name of the hospital at which the patient was operated upon, with all pertinent dates, together with the candidate's name, or identifiable initials.

2. Histories must be typewritten on standard size paper, 8½ by 11 inches.

3. Must be assembled by individual cases.

4. Must not be bound with any form of binding other than light weight paper folders or covers.

The critical summary or analysis which must be prepared for each case must include:

1. An account of the candidate's personal observations of the case both prior to and subsequent to operation.

2. The basis for the diagnosis.

3. The facts that determined the course of treatment. Details of operative technic should not be included.

4. Critical conclusions to be drawn from the outcome of the case.

Case reports which do not include such discussion and comments will not be reviewed or graded by the examiners.

Two separate index lists must be made for each individual hospital at which operations were performed. These must state:

Candidate's name at head of each page.
Name and address of the hospital.
Patient's name, or identifiable initials.
Patient's admission number.
Date of admission.
Date of operation.
Date of discharge.

Lists must be verified by the superintendent or by the medical director, of each individual hospital from which the reports come. All verifications must be formally signed by the responsible hospital official, attesting in each instance that the candidate was the operator.

Case reports are to be presented with the completed examination paper to the examiner conducting the written examination. They are not to be sent by the candidate to the secretary.

The final action of the board is based upon the candidate's ethical and professional record, training and attainments, as well as on the results of his formal examination.

REVOCATION OF CERTIFICATES

Each Certificate of Qualification may be revoked by this board in the event that:

1. Any representation or statement made to the board or to any of its representatives by the physician so certified, including the statements contained in his application for certification, shall have been false or intentionally misleading.

2. The physician so certified shall not *in fact* have been eligible to receive certification, irrespective of whether or not the facts constituting such incligibility were known to or could have been ascertained by this board, its members, directors, examiners, officers, or agents at or before the time of issuance of such Certificate of Qualification.

3. Any rule governing examination for certification shall have been violated by the physician so certified and the fact of such violation shall not have been ascertained until after the issuance of the Certificate of Qualification.

4. The physician so certified shall fail to abide by the regulations governing the limitation of his practice to the specialty as hereinabove defined.

5. The physician so certified shall violate the standards of ethical practice of medicine then accepted by organized medicine in the locality in which he shall be practicing and, without limitation of the foregoing, the forfeiture, revocation or suspension of his license to practice medicine, or the expulsion from, or suspension from the rights and privileges of membership in, the American Medical Association or any state or county society affiliated therewith, any recognized Canadian medical society, the American Association of Obstetricians and Gynecologists and Abdominal Surgeons or the American Gynecological Society shall be conclusive evidence of a violation of such standards of ethical practice of medicine.

6. The physician so certified shall fail to comply with or violate, or the issuance or receipt by him of such Certificate of Qualification shall have been contrary to or in violation of, the Certificate of Incorporation, the By-Laws or the Rules and Regulations of this board.

The board recognizes the shortage of physicians for civilian needs during the war period, and for an indeterminate period thereafter, and will not enforce its existing regulations against nonlimitation of practice among its present holders of certificates, provided it can be justified by military duties and local conditions. Proof of such necessity must be shown.

Upon revocation of any Certificate of Qualification by this board as aforesaid, the holder thereof shall return his Certificate of Qualification and all other evidence of certification to the secretary of the board and his name shall be removed from the list of diplomates or certificate holders by this board.

Make checks payable to the American Board of Obstetrics and Gynecology. Communications should be addressed to the secretary-treasurer.

AMERICAN BOARD OF OPHTHALMOLOGY

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ORIGIN, AIMS AND METHODS

In 1913 the American Ophthalmological Society, the Section on Ophthalmology of the American Medical Association, and the American Academy of Ophthalmology and Otolaryngology appointed committees to report on ophthalmic education.

In 1914 these committees recommended that medical schools of the first class establish graduate courses in ophthalmology leading to an appropriate degree, and that these courses should represent not less than two years of systematic work subsequent to taking the degree of Doctor of Medicine. There was unanimous agreement as to the need of systematized and standardized training of those who are to practice ophthalmology, but it was clear that, in the near future, the number who would take the complete course leading to such a degree would be small. Moreover, such a course would not solve the problem of differentiating, in some degree, between the competent and the incompetent among those now in practice in ophthalmology. The committees were continued and, in 1915, they made further recommendations, as a result of which a joint board was created consisting of three representatives from each of the three special societies.

In 1916, after much preliminary work, this board was organized as the American Board for Ophthalmic Examinations (later changed to "American Board of Ophthalmology"). It was incorporated May 3, 1917.

In 1934 the plan of organization was changed so that each component society elects four members, instead of three, to form the board. The members of this board are chosen in the same manner as the presiding officers of these societies are chosen. One is elected each year by each of the societies represented on the board, to serve for four years.

As other specialties formed boards similar to the American Board of Ophthalmology the need for some supervising and coordinating control led to action by the American Medical Association in 1933 authorizing the Council on Medical Education and Hospitals: (1) to formulate standards of administration, based on those of the American Board of Ophthalmology, of Otolaryngology, of Gynecology and Obstetrics, and of Dermatology and Syphilology; and (2) to recognize officially new boards meeting these standards.

The Constitution of the Advisory Board for Medical Specialties which was organized in 1934 states that: "This board shall act in an advisory capacity to such organizations as may seek its advice concerning the coordination of the education and certification of medical specialists."

CHIEF FUNCTIONS

1. To establish standards of fitness to practice ophthalmology cooperating with hospitals and graduate schools of medicine.

2. To arrange and conduct examinations to test the qualifications of those who practice ophthalmology, and to confer certificates upon those who meet the standards established by the board.

3. To act as preceptors for prospective students of ophthalmology.

NO DEGREES

The conferring of a degree is left to the universities, where it belongs, and the board makes no attempt to control the practice of ophthalmology by any license or legal regulation whatever. It simply aims to establish a standard of fitness to practice ophthalmology, and to certificate any who, voluntarily, apply and satisfy the board of their qualifications.

The following is the wording of the present certificate:

The American Board of Ophthalmology hereby certifies that .....*(name)*..... has pursued an accepted course of graduate study and clinical work, and has successfully passed the examination in ophthalmology conducted under the authority of this Board.

Date.....

Signatures of members of the Board

Many special eye hospitals as well as general hospitals in all parts of the country require the certificate for appointment or promotion on their staffs. In addition, many societies now require the certificate as a prerequisite for membership.

The number of institutions and societies which require the certificate of the board is increasing.

The American College of Surgeons recognizes the certificate of this board as evidence of academic fitness in ophthalmology. It requires from candidates for its Fellowship who hold such certificates only half as many case histories as from those who are not so certificated.

Up to July 1, 1941 approximately 1,875 ophthalmologists have received the certificate of the board.

FEES

The fee for the examination and the certificate of the American Board of Ophthalmology is $50. Of this sum $25, which is not returnable, must accompany the application. The balance of $25 must be paid before the candidate is admitted to examination.

Applications expire three years from date of application. If a candidate has not appeared for examination before expiration of his application, he will be required to apply again and pay an additional application fee of $25.

The fees of candidates are used solely for defraying the actual expenses of the board. The members of the board and their associates receive no emoluments.

GENERAL REQUIREMENTS FOR ALL CANDIDATES

1. Application on special blank, which may be obtained from the secretary, must be filled out accurately. Letters of endorsement from two well known physicians (preferably ophthalmologists) together with any other required credentials must accompany the application and must be sent to the secretary at least before December 1 preceding date when the candidate expects to appear for examination.

2. The candidate must have high ethical and professional standing in his community.

3. Membership in the American Medical Association or such other societies as are recognized for the purpose by the Council on Medical Education and Hospitals of the American Medical Association. In the case of an applicant whose training has been received outside of the United States and Canada, his credentials must be satisfactory to the board; if he has been in practice less than ten years he should obtain the certificate of the National Board of Medical Examiners.

4. A list of papers or books published by the candidate must be submitted.

5. Reports of ten cases of varied character which have been observed and treated by the applicant are required.

6. An examination divided into Part I (oral) and Part II (clinical, practical and laboratory). In both of these examinations a knowledge of the practical application of the basic sciences of ophthalmology will be required.

7. Citizenship in country where candidate practices.

The final action of the board is based on the candidate's professional record, training and attainments as well as on the results of his formal examinations.

GENERAL EDUCATIONAL REQUIREMENTS

(Applicable as far as possible after 1944)

1. A degree from a medical school of high standing satisfactory to the board and approved by the Council on Medical Education and Hospitals of the American Medical Association. In the case of an applicant whose training has been received outside of the United States and Canada, his credentials must be satisfactory to the board. He may be required to obtain the certificate of the National Board of Medical Examiners.

2. Completion of an internship of not less than one year in a hospital approved by the same Council.

SPECIAL TRAINING

(Applicable as far as possible after 1944)

A period of combined study, training and practice of not less than three years in approved medical schools, hospitals, clinics, dispensaries, laboratories, perceptorships and private practice.

(A total of five years will be required of candidates practicing eye, ear, nose and throat.)

1. This shall include graduate study of the basic medical sciences which are fundamental to the intelligent practice of ophthalmology, particularly: anatomy, histology, embryology, optics, physiologic optics, visual physiology and psychology, pathology, bacteriology, pharmacology. Mere factual knowledge of these subjects is not sufficient. The candidate must have had training in their application and in their use in clinical ophthalmology, especially in refraction, disorders of motility and binocular vision, perimetry, and in the skilful adjustment and use of instruments such as the ophthalmoloscope, retinoscope, slit lamp and microscope.

2. Active clinical experience in approved hospitals, clinics, dispensaries and private practice. Library and laboratory facilities should be utilized for the intensive study of cases.

The subject matter to be covered under 1 and 2 is outlined in the syllabus prepared by the board.

These requirements may be met in various ways:

BASIC STUDIES

A—By courses in approved graduate medical schools.

B—By the opportunities for study afforded by the appointment to a junior position in one of the departments with attendance at advanced lectures in the other subjects.

C—By advanced study of these subjects while a resident and by application of the principles involved to patients under one's control.

D—By the detailed study, under supervision or as assistant to an experienced research worker, of some problem or topic which brings the basic facts of physiology, pathology, etc., into direct relation with the concrete clinical problem. The analysis of a problem with detailed knowledge of its fundamental physiologic and pathologic background does much to stimulate thoroughness, clear thinking and progress.

CLINICAL EXPERIENCE

A—By residency in an approved hospital. The most desirable of these residencies have regular lectures covering the whole field of clinical ophthalmology and of the basic subjects as applied in clinical practice. Many of these have seminars at which residents report cases which they have carefully worked up. These are discussed by the other residents and by the staff and the method of presentation as well as the subject matter critically considered.

B—There are many residencies, usually of 12 months, which do not furnish regular instruction by lectures and quizzes and seminars. If he has access to a good library and laboratory, the student can learn a great deal and has some advantages over the man who expects to be "spoon-fed." The syallbus prepared by the board will guide him in his selection of topics to be studied.

C—There are some opportunities to continue the study and experience by securing appointments as fellows.

D—By a period of training in association with a well trained and critical ophthalmologist who takes the trouble to teach and guide his assistant.

E—After completing a residency it is of great advantage to secure a position in a clinic as fellow or assistant. This may require only part time work, but due credit will be given. Its value to the student depends on how much study he puts into it and on how competent his seniors are.

F—Research under competent critical and sympathetic supervision will give first hand insight into (1) the methods whereby old knowledge was and new knowledge is acquired, and (2) the pitfalls which accompany attempts to enlarge the sphere of knowledge. Only in this way can the candidate evaluate facts of the past and present in the intelligent critical way which is expected of the specialist.

The candidate who cannot secure the type of residency he desires should not despair, for his progress depends far more on how he uses his opportunities than on the opportunities themselves.

WHAT CONSTITUTES THE EXAMINATION

In determining the question of certification, the examiners rely on the following criteria:

1. The applicant's professional and ethical record;
2. Oral examination;
3. Clinical, practical, and laboratory examination.

CASE REPORTS

Detailed instructions for the preparation of case reports should be obtained from the secretary.

ORAL EXAMINATION: PART I

These examinations will be given just prior to the practical and clinical examination.

The oral examination will be on subjects as follows:

External Diseases	Relation of the Eye to General Diseases
Pathology-Histopathology	
Bacteriology	Therapeutics and Operations (including Practical Surgery)
Refraction and Retinoscopy	
Anatomy and Embryology	Optics and Visual Physiology
Perimetry and Campimetry	

PRACTICAL AND CLINICAL EXAMINATION: PART II

The purpose of the examination is to determine the competence of the candidate to practice ophthalmology.

Candidates must be prepared to be examined in the whole field covered by the syllabus of the board. The time spent in preparation will count less than the knowledge and experience acquired as shown on examination.

The subdivisions of the practical examination are as follows:

1. External diseases of the eye, lacrimal passages, etc., including inspection, focal illumination, use of loupe and slit lamp, examination of reactions of the pupil, of tension by tonometer and by fingers.

2. Ophthalmoscopy. Several patients will be examined by the candidate and the findings described or drawn. The ability to see with the ophthalmoscope and to interpret what is seen, and the systematic and thorough methods of examination used by the candidate will count for more than mere statement of diagnosis. A candidate should bring his own ophthalmoscope so that he may not suffer the handicap of an unfamiliar instrument.

3. Pathology. The candidate should be familiar with general clinical pathology as well as the etiology, pathology, and bacteriology of diseases of the eye. He will be asked to examine microscopic slides and to recognize ordinary normal and pathologic histology of the eye and to identify the commoner microorganisms.

4. Refraction. A candidate will examine patients and show mastery of various methods, and of the principles of refraction and of retinoscopy. He should bring his own retinoscope.

5. Ocular Motility. The candidate will demonstrate upon patients his familiarity with routine methods of examination for abnormalities of the ocular muscles.

6. Practical Surgery. A candidate will demonstrate his surgical technic upon animals' eyes. To have the advantage of using instruments with which he is familiar, he should bring his own equipment for performing a regular combined extraction of the lens.

DATES OF EXAMINATION

Examinations will be held annually at or near the time and place of the meeting of the American Medical Association; also at other times and places at the discretion of the board, depending on the number of applications from any region.

Notices of all examinations will be found in The Journal of the American Medical Association, and in the special journals of ophthalmology.

REEXAMINATION

Candidates may be reexamined as often as they desire, provided they give satisfactory evidence of adequate preparation. One year must elapse between examinations and the board may, at its discretion, deny the candidate the privilege of reexamination.

REVOCATION OF CERTIFICATE

Any certificate issued by the board shall be subject to revocation by the board at any time in case it shall determine in its sole judgment that a candidate, who has received the certificate

of the American Board of Ophthalmology, either was not properly qualified to receive it, or has since its receipt become disqualified.

Communications should be addressed to the secretary-treasurer.

AMERICAN BOARD OF ORTHOPAEDIC SURGERY, Inc.

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GUY A. CALDWELL, Secretary-Treasurer, 3503 Prytania Street, New Orleans.
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ROBERT D. SCHROCK, Omaha.

INTRODUCTION

The rapid growth of specialism and the increasing number of physicians limiting themselves in their practice to one branch of medicine or surgery emphasize the need for the proper certification of specialists in the various branches of the medical science. In recognition of this condition the American Board of Orthopaedic Surgery, Inc., aims to elevate the standard of qualifications for the practice of orthopaedic surgery and to certify those surgeons who voluntarily comply with its requirements.

In order to place orthopaedic surgery on the highest possible plane, the American Orthopaedic Association, the Section on Orthopaedic Surgery of the American Medical Association and the American Academy of Orthopaedic Surgeons united in organizing a certifying board which was incorporated in the year 1934 as the American Board of Orthopaedic Surgery, Inc.

The American Board of Orthopaedic Surgery, Inc., has been officially approved by the Advisory Board for Medical Specialties and by the Council on Medical Education and Hospitals of the American Medical Association.

WHAT THE BOARD WILL ACCOMPLISH

1. Certification by the board will establish a criterion to both interested lay and professional groups for judging the qualifications of an orthopaedic surgeon. Thus a reliable guide will be furnished for the choosing of consultants.

2. Hospitals and other organizations will no doubt establish rules limiting service on their permanent staffs to those certified by the board.

3. It will gradually tend to limit the practice of orthopaedic surgery to those properly qualified.

4. Certification by the American Board of Orthopaedic Surgery is one of the essential requirements for membership in the American Orthopaedic Association and the American Academy of Orthopaedic Surgeons.

Excerpts from Articles 1, 2, 7 and 8 of the By-Laws.

Article 1. *Section 1.* DEFINITION. Orthopaedic Surgery is that branch of surgery especially concerned with the preservation and restoration of the functions of the skeletal system, its articulations and associated structures.

Article 2. *Section 2.* PURPOSES. To test and determine the qualifications of applicants for registration and to issue certificates to those found qualified.

Section 3. To prepare and maintain a registry of the holders of the certificates issued by the board.

Section 4. To serve the public, physicians, hospitals and medical schools by furnishing lists of those who have received the certificate of the board, and thus to assist in protecting the public against irresponsible and unqualified practitioners who profess to specialize in orthopaedic surgery.

Article 7. *Section 1.* APPLICATION FOR CERTIFICATE. Each application for a certificate shall be filed with the secretary upon the prescribed form, and shall be accompanied by the fee which the board may fix from time to time. It shall also be accompanied by an unmounted autographed recent photograph of the applicant and the names of two orthopaedic surgeons acceptable to the board, who may be referred to for information in regard to the applicant.

Section 2. The applicant must have the following qualifications:

(a) He must be a graduate of a medical school approved by the Council on Medical Education and Hospitals of the American Medical Association.

(b) He must be of high ethical and professional standing.

(c) He must be a citizen of the United States or Canada.

(d) He must be duly authorized to practice medicine in the state or province of his residence.

(e) He must be a member of the American Medical Association or another society approved by the Council on Medical Education and Hospitals of the American Medical Association.

(f) He must have had one year of internship in a general hospital acceptable to the board.

(g) After Jan. 1, 1940, he must have had three years of concentrated instruction in orthopaedic surgery approved by and acceptable to the board. (A residency of at least two years on an orthopaedic service of a hospital recognized by the Council of the American Medical Association is desirable.)

(h) He must have knowledge of the basic medical sciences related to orthopaedic surgery.

(i) He must have had at least two years' further experience in the actual practice of orthopaedic surgery. Continuation of training (g) beyond the three years required will not be considered as actual practice unless the position of the candidate is considered permanent or his responsibilities equivalent to those encountered in private practice. This means that interns, residents, fellows, graduate students and assistants will not be credited with additional periods of training unless they are permanent members of the organizations with which they are associated.

(j) He must have limited his work to the field of orthopaedic surgery for at least two years prior to the submission of his application for examination.

(k) In the case of an applicant whose training has been received outside of the United States and Canada, his credentials must be satisfactory to the Council on Medical Education and Hospitals of the American Medical Association and to the National Board of Medical Examiners. In addition, he must have been engaged in the practice of orthopaedic surgery in the United States (or Canada) for at least three years prior to the submission of his application.

(l) During the present national emergency, the board will recognize up to a maximum of one year for work done in the orthopaedic division of the Army or Navy. If the above fills out the three years of special required training for examination, further time spent in the orthopaedic division of the armed forces, up to a maximum of one year, will be credited towards the practice requirement.

Section 3. Each applicant shall be examined and his qualifications determined by the board in such manner as it may designate, and his record shall be reviewed by the board in the light of all assembled information.

Article 8. *Section 1.* CERTIFICATE. If the applicant be found qualified therefor, a certificate that he has been found by this board qualified to practice orthopaedic surgery shall be issued to him. The certificate shall be in such form as may be adopted by the board, and shall be signed by the officers and members of the board.

EXAMINATION

Examinations will be held once a year. If feasible, these examinations will be in conjunction with meetings of the major orthopaedic societies.

Oral and written examinations will be held on clinical, anatomical and pathological phases of orthopaedic surgery. Anatomical and pathological laboratories and hospital wards will be used when practicable.

APPLICATION FOR CERTIFICATION

Application forms may be obtained from the secretary of the board. These should be filled in accurately and returned not less than ninety days prior to the next examination. An autographed photograph and the fee must accompany the application.

FEES

The examination fees have been adjusted so as to be in closer accord with the other specialty boards. A fee of $50 will accompany the application and cover the expenses of the first examination. Candidates appearing before the board for second and third examinations will pay additional fees of $25 for each of the subsequent examinations following the first. This will take effect as of Jan. 15, 1941 and will not be retroactive.

Communications should be addressed to the secretary.

AMERICAN BOARD OF OTOLARYNGOLOGY

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ORIGIN, AIMS AND METHODS

SOURCE OF AUTHORITY

In 1916 the American Academy of Ophthalmology and Otolaryngology appointed a committee on examinations, consisting of Drs. Thomas E. Carmody, Harris P. Mosher, and Ross Hall Skillern, before whom candidates professing otolaryngology as a specialty were to appear to be qualified as such.

In 1924, through the efforts of Dr. George Shambaugh, the committee was enlarged to include representatives from each of the following societies: the American Laryngological Association, the American Otological Society, the American Laryngological, Rhinological and Otological Society, the American Academy of Ophthalmology and Otolaryngology and the Section of Laryngology, Otology and Rhinology of the American Medical Association. Each organization appointed two members, making a total of ten, which constituted the first American Board of Otolaryngology. The organization members were Dr. J. C. Beck of Chicago, Dr. T. E. Carmody of Denver, Dr. T. H. Halstead of Syracuse, N. Y., Dr. H. W. Loeb of St. Louis, Dr. R. C. Lynch of New Orleans, Dr. H. P. Mosher of Boston, Dr. B. R. Shurly of Detroit, Dr. R. H. Skillern of Philadelphia, Dr. F. R. Spencer of Boulder, Colo., and Dr. W. P. Wherry of Omaha.

CHIEF ACTIVITIES OF THE BOARD

First, to establish the qualifications for the practice of otolaryngology and to hold examinations and to certify those otolaryngologists whom the board finds qualified and competent.

Second, these activities proceed from the object of the corporation which is stated in the articles of incorporation to be:

"The object of the corporation shall be to elevate the standard of otolaryngology, to familiarize the public with its aims and ideals, to protect the public against irresponsible and unqualified practitioners, to receive applications for examination in otolaryngology, to conduct examinations of applicants, to issue certificates of qualification in otolaryngology and to perform such duties as will advance the cause of otolaryngology."

NO DEGREES

It is not the function of the board to grant a degree.

AIM OF CERTIFICATION

It is the aim of the board that societies representing the specialty of otolaryngology, teaching institutions and hospitals shall require the certificate of the board for admission to the special societies and for advancement in hospitals or teaching institutions.

CLASSIFICATION OF CANDIDATES

Applicants for examination and for the Certificate of the Board are divided into classes according to the length of time they have practiced otolaryngology.

(Limited practice in otolaryngology interpreted as ninety (90) per cent otolaryngological practice—ophthalmology excepted.)

Class I—Limited Practice, fifteen years or more.
Class II—Limited Practice, ten to fifteen years.
Class III—Limited Practice, five to ten years.
Class IV—Limited Practice, three to five years.

(Basic course in otolaryngology and residency in otolaryngology required in this group. — Class IV.)

REQUIREMENTS

The following are required by the board:

First, a candidate acceptable for the examination must be a graduate of a school approved by the Council on Medical Education and Hospitals of the American Medical Association and he must have had at least one year of general internship in an approved hospital.

Second, membership in the American Medical Association or, by courtesy, membership in such Canadian or other medical societies as is recognized by the Council on Medical Education and Hospitals of the American Medical Association. Except as here provided, membership in other societies will not be required.

In rare cases the board may make exceptions to the foregoing.

Third, a candidate must have completed an acceptable basic science course and at least a one year residency in otolaryngology. A two year residency, however, is recommended. The minimum preparation accepted for examination is three years' graduate work.

Fourth, five years' specialized practice, or its equivalent, in the judgment of the board may be accepted in lieu of the requirements in paragraph 3.

Fifth, application must be made on a special blank procured from the secretary. The executed instrument must be returned to the secretary, together with other required credentials at least ninety days in advance of the examination at which the candidate desires to appear.

Sixth, with the application, please send verification from the institutions together with dates of enrollment, where training in otolaryngology was obtained.

Seventh, letters of recommendation are requested from the central office by the secretary.

Eighth, each applicant must send a small photograph with his application and must present himself in person before the board.

Ninth, the fee for the examination is $50, and check for this amount must accompany the application blank. No application will be acted on until the fee is paid. Under no circumstances is the fee returnable.

Tenth, the application remains valid only five years. An applicant must appear for examination within this time or forfeit the fee.

Eleventh, if the candidate fails in an examination he will be admitted to a second examination after one year, or at any time within the five year limit of his application. Ninety days' notice of intention to appear is required. If a candidate who has failed does not appear before five years after the filing of his application he will be required to make a new application and pay an additional fee of $50 before the reexamination.

An applicant having failed twice, must file a new application, pay an additional fee of $50 and convince the board of additional postgraduate study previous to being assigned an appointment for another examination.

Twelfth, examinations covering two or three days will be held biannually at, or near, the time and place of meeting of the American Medical Association, and of the American Academy of Ophthalmology and Otolaryngology.

Thirteenth, candidates are required to sign the following pledge:

I hereby apply to the American Board of Otolaryngology for examination by the said board in accordance with its rules and herewith enclose the fee of $50. I hereby agree that prior to an examination, or subsequent to my examination, the Board may investigate my standing and reputation as a physician, including my reputation for complying with the standard of ethics of the profession, and may refuse to examine me, or, having examined me, may refuse a certificate, and such refusal to grant a certificate, whether justified or otherwise, may not and shall not be questioned by me in any court of law or equity or other tribunal, nor shall I have any claim, in the event of such refusal, to a return of the fee accompanying this application.

PRACTICAL EXAMINATION

The complete examination consists of three or four parts: clinical, didactic, pathology, and possibly written.

All candidates will be examined in both didactic and clinical phases of otolaryngology. In addition to the foregoing:

Written examination may be given at the discretion of the board.

Candidates in Class III take the examination in gross pathology.

Candidates in Class IV take microscopy and gross pathology.

The didactic examination is a private oral examination covering all aspects of otolaryngology.

The clinical examination of patients includes history taking; physical and functional examinations; the use of laboratory and x-ray findings; and a discussion of differential diagnosis.

Communications should be addressed to the secretary, Dr. Dean M. Lierle, 1500 Medical Arts Building, Omaha, Neb.

AMERICAN BOARD OF PATHOLOGY, Inc.

A. H. SANFORD, President, Rochester, Minn.
FREDERICK H. LAMB, Vice President, Davenport, Iowa.
FRANK W. HARTMAN, Secretary-Treasurer, Henry Ford Hospital, Detroit.
ALVIN G. FOORD, Pasadena, Calif.
NATHAN CHANDLER FOOT, New York.
HOWARD T. KARSNER, Cleveland.
ROY R. KRACKE, Emory University, Ga.
JOSIAH J. MOORE, Chicago.

ORGANIZATION AND OBJECTIVES

In June 1935 the Section on Pathology and Physiology of the American Medical Association and the American Society of Clinical Pathologists appointed committees which acted jointly in consideration of the feasibility and necessity of a national qualifying board. The joint committees agreed unanimously that such a board should be established and proceeded to draw up by-laws for such a board. In May 1936 the American Society of Clinical Pathologists and the Section on Pathology and Physiology of the American Medical Association accepted the proposed by-laws, authorized the nomination of four members each to the board and suggested incorporation in the state of Michigan. Approval of the board by the Advisory Board for Medical Specialties and the Council on Medical Education and Hospitals of the American Medical Association was given. On July 19, 1936, the organization of the board was carried out in Chicago.

PURPOSES

A. To encourage the study and promote the practice of pathology.

B. To elevate the standards and advance the cause of pathology, by encouraging its study and improving its practice.

C. To determine the competence of those wishing to practice this specialty of pathology and to arrange, conduct, and control investigations and examinations to determine the qualifications of such individuals who voluntarily apply for the certificates issued by the corporation.

D. To grant and issue certificates in the special field of pathology to voluntary applicants therefor and to maintain a registry of holders of such certificates.

E. To serve the public, the medical profession, hospitals, and medical schools by preparing and furnishing lists of specialists who have been certified by the corporation.

VALUE OF THE CERTIFICATE

Judging from the experience of other specialties operating a certifying board it is anticipated that the certificate will be of value in that the medical profession, the lay public, and hospital administrators will utilize certificates from the board as a means of discriminating between those that are thoroughly qualified in pathology and those that are not. Lists of those holding certificates will be made available from time to time by this board through the publication of the same in pamphlets and in national medical journals.

BOARD NOT AN EDUCATIONAL INSTITUTION

The board is in no sense an educational institution and the certificates of the board are not to be considered degrees. Therefore the certificate does not confer on any person legal qualifications, privileges, or license to practice medicine or the specialty of pathology. The board does not purport in any way to interfere with or limit the professional activities of any licensed physician. Its chief aim, as stated above, is to standardize the qualifications for the specialty of pathology and to issue certificates to those voluntarily complying with the requirements of the board.

GENERAL REQUIREMENTS

A. General qualifications.

1. Satisfactory moral and ethical standing in the profession.

2. License to practice medicine.

3. Membership or associate membership in the American Medical Association or by courtesy membership in such Canadian or other national medical societies as are approved by the Council on Medical Education and Hospitals of the American Medical Association is suggested.

4. That the applicant devotes his time primarily and principally to the practice of pathology.

B. Professional education.*

1. Graduation from a medical school in the United States or Canada, approved by the Council on Medical Education and Hospitals of the American Medical Association.

C. Special training, to be effective after July 1, 1938:

1. Completion of an internship of not less than one year in a hospital approved by the Council on Medical Education and Hospitals of the American Medical Association.

2. A period of study, exclusive of internship, of not less than three calendar years, exclusive of reasonable vacation periods, in an institution or department of pathology recognized by the same council and the board of trustees as competent to provide a satisfactory training in the field of pathology. This period of special training preparation shall include the following:

(a) Graduate training for one year in the various phases of clinical pathology.

(b) Training and experience of not less than two years in a department of pathologic anatomy.

(c) Such training may be combined or in sequence.

3. A fifth year of training or practice in pathology.

D. Special qualifications:

1. The board may accept candidates without special training as outlined in Section C above provided that:

(a) The candidate shall have been for a period of five years of professorial rank in a department of pathology in an approved medical school, or

* NOTE: In case of an applicant whose education and/or training has been received outside the United States or Canada, his credentials must be acceptable to the National Board of Medical Examiners and the American Board of Pathology.

(b) The candidate shall have been practicing pathology for ten years in a senior position in a hospital, having an adequate department of pathology, and approved by the Council on Medical Education and Hospitals of the American Medical Association.

Candidates with special qualifications, as outlined in Section D above, may be certified without examination, at the discretion of the board.

APPLICATION BLANK AND FEE

Application must be made on the special form which may be procured from the secretary and forwarded with other required credentials and the application fee. Applications cannot be given consideration by the board unless accompanied by the application fee.

The application or examination fee for candidates is $35. If certified without examination $10 of fee will be refunded. If the candidate fails in his examination he will be admitted to a second examination after one year, but not later than three years, without additional fee. After two reexaminations the applicant must file a new application and pay an additional fee before a fourth examination will be given.

The examination fee of $35 has been arrived at after careful consideration, and is based on actual estimates of the expense of examination and administration. None of the board members receive any compensation for their services except actual expenses incurred.

If the applicant, for any reason, is deemed ineligible for examination by the board his fee will be returned; however, the application fee is not returnable after the candidate has officially been accepted for examination and notified to report for the same.

EXAMINATIONS

Written and oral examinations will be held at or near the time and place of national medical meetings at the discretion of the board. If a number of applications from any region of the country are received an examination in conjunction with a national medical meeting in that section will be arranged so that the financial outlay of the applicant in meeting the examiners will be as small as possible.

The examinations are to be based on the broad principles of pathology with emphasis on diagnosis and interpretation. The applicant may apply for certification in either pathologic anatomy or clinical pathology, or both.

DEFINITIONS

1. Pathologic anatomy is that branch of pathology which deals with the morphological aspects of disease, recognition being given that this definition covers two phases of pathology.

(a) The applied phase, with special attention to biopsy description and diagnosis.

(b) The academic phase of teaching and general morphological diagnosis.

2. Clinical pathology is that branch of pathology which deals with bacteriology, immunology, biochemistry, parasitology, hematology, and clinical microscopy, in relation to the diagnosis, prognosis, and treatment of clinical disease.

REEXAMINATIONS

In case the candidate fails in the qualifying examination he will be eligible for reexamination after one year has elapsed, but he must give written notice of his intention to appear for reexamination. Two reexaminations are allowed without an additional fee, providing they are taken within a three year period. The candidate who fails three times must file a new application and pay a second $35 fee before he is eligible for further examination.

REVOCATION OF CERTIFICATES

Certificates issued by the American Board of Pathology are subject to the provisions of the Articles of Incorporation No. XI, Section 4. Any certificate issued by the Board of Trustees shall be issued subject to revocation in the event that:

(a) The physician or party so certified shall have made any misstatement or misrepresentation of a material fact in his application, or in any other communication to the board or its representatives, which misstatement or misrepresentation affected the eligibility of the physician or the party so certified.

(b) The issuance of such certificate has been made contrary to or in violation of any of the rules, laws, or regulations of this corporation.

(c) It is ascertained that the physician or party so certified is not eligible in fact to receive such certificate.

(d) The physician or party receiving such certificate shall prior to the issuance of such certificate or thereafter have been convicted by a court of competent jurisdiction of a felony or of any misdemeanor, which misdemeanor in the opinion of the Board of Trustees, shall involve moral turpitude.

(e) The physician or party receiving such certificate shall prior thereto, or thereafter, have his license to practice medicine revoked.

(f) The physician or party receiving such certificate shall be expelled from any of the societies or organizations making him eligible to this corporation as an applicant for such certificate.

All communications should be addressed to the secretary-treasurer.

AMERICAN BOARD OF PEDIATRICS, Inc.

HORTON CASPARIS, President, Nashville, Tenn.
C. ANDERSON ALDRICH, Secretary-Treasurer, 707 West Fullerton Avenue, Chicago.
FRANKLIN PAUL GENGENBACH, Denver.
HUGH MCCULLOCH, St. Louis.
CHARLES F. MCKHANN JR., Ann Arbor, Mich.
DONOVAN J. MCCUNE, New York.
EDWARD BYER SHAW, San Francisco.
HAROLD COE STUART, Boston.
ALFRED AUGUSTUS WALKER, Birmingham, Ala.

ORIGIN

The American Board of Pediatrics was established in June 1933 by joint action of the American Pediatric Society, the American Academy of Pediatrics and the Section on Pediatrics of the American Medical Association after consideration of the report of a committee on pediatrics as a special field of medical practice. The committee recommended that the certification plan adopted and in use in the fields of ophthalmology, otolaryngology, gynecology and obstetrics, and dermatology be adapted to pediatrics.

Any method of certification in any specialty must be national in scope, must in its ultimate analysis be controlled by the men in each special field and must be independent of society membership or affiliation. The American Board of Pediatrics fulfils these three essentials: A uniform standard of competency is set up, the character of which is assured through the affiliation with the Advisory Board on Medical Specialties; the board is controlled by pediatricians, its membership being composed of three men appointed by each of the three national pediatric societies; the board is not a medical society, however, and certification is independent of society affiliation.

The American Board of Pediatrics was incorporated in the state of Delaware in November 1933 as a nonprofit organization.

FUNCTION

The functions of the board are outlined in the articles of incorporation as follows:

"To encourage the study, improve the practice and elevate the standards of pediatrics; and to grant and issue to physicians, duly licensed by law, certificates or other equivalent recognition of special knowledge in pediatrics."

The board has interpreted this to mean that its efforts to encourage and improve the practice of pediatrics shall be limited to its function of certification of competency in the specialty. Obviously other organizations are better able to further the general improvements in pediatrics.

The board specifically defines its activities as follows:

1. To establish standards by which the competency of men to practice pediatrics may be estimated.

2. To arrange, control and conduct examinations to test the qualifications of those desiring certification as pediatricians.

3. To grant certificates of qualification to those applicants who meet the standards successfully.

The board further feels that in carrying out these activities it is merely acting as the agent of the three societies which appointed its members and initiated the project.

No financial recompense of any kind is made to any member of this board except to cover actual traveling expenses to meetings and examinations. The application fee is $50.

CERTIFICATE—NOT A DEGREE

Certificates granted are in no sense degrees, nor do they purport to confer upon any person any legal qualification, privilege or license to practice pediatrics. Neither does the board intend in any way to limit the activities of any licensed physicians. It is merely attempting to standardize qualifications and to issue certificates to those who voluntarily comply with the requirements.

VALUE OF THE CERTIFICATE

It is anticipated that the certificate will become of value in that both the medical and lay public, including hospital directors, will soon utilize the certificate from this board as a means of

discriminating between those who are well grounded as pediatricians and those who are not.

A certificate is required as one of the qualifications for new members of the American Academy of Pediatrics. The certificate of the American Board of Pediatrics is recognized by the Council on Medical Education of the American Medical Association. Holders of certificates are so designated in the directory of the American Medical Association.

A joint Directory of Specialists certified by the fifteen specialty boards was published in 1942 by the Advisory Board for Medical Specialties.

Lists of those holding certificates from this board are published in this Directory of Medical Specialists and additional lists of new licentiates are published in the Journal of Pediatrics and the American Journal of Diseases of Children. The American Medical Directory indicates diplomates of this and other boards by means of abbreviations and symbols (A.B.1) appearing in the biographic records.

This board, in cooperation with the Council on Medical Education and Hospitals of the American Medical Association, is conducting a survey of institutions providing acceptable residencies and internships in pediatrics.

APPLICANTS FOR CERTIFICATES

Requirements for Applicants.—Each applicant for a certificate must establish in a manner satisfactory to the board that he is of high ethical and professional standing, is a graduate of a medical school which is satisfactory to the board, and has received adequate training in pediatrics as a specialty in addition to passing the examination given by this board and is a citizen of the United States, of its dependencies, or of Canada.

Applicants are divided into two classes, according to the length of time they have been engaged in the specialty.

Following is the classification of applicants for certification. Changes may be made in future years based upon the general requirements as adopted by the Advisory Board of Medical Specialties and the Council on Medical Education and Hospitals of the American Medical Association.

All applicants must take the examinations.

Group I.—Physicians who have specialized in pediatrics for ten years or more. After July 1, 1943, Group I will be abolished.

Group II.—The minimum requirements for this group are as follows:

Graduate of a Class A medical school.

One year's intern service in a recognized hospital.

Two years' service in a pediatric center.

An additional term of two years of specialized study and/or practice.

The board defines service in a pediatric center as full time devoted to rounded experience in an acceptable hospital or a graduate course, which includes ward and outpatient service and both therapeutic and preventive pediatrics. The time served in pediatric centers need not be continuous or spent in the same institution. In the case of a post-graduate course an academic year will meet the requirement of one year's work. A maximum of six months of this time may be spent in full time contagious work in a recognized hospital.

The application fee is $50 and must be remitted with the application. Refund will be made only if the applicant is refused examination. The applicant who has failed in an examination will not be required to pay a second fee if he takes another examination after two years have elapsed and he has presented evidence of continued study and activity in pediatrics.

Application must be made on special blanks which may be secured from the secretary. These must be sent to the secretary at least *four months* before the date at which the candidate expects to take the examinations.

Letters from two competent pediatricians recommending each applicant must be sent to the secretary of the board. These letters are not to accompany the application, but should be sent directly to the secretary. No member of the board, or official examiner, may recommend any applicant.

A list of papers or books published must be sent with the application blank.

INFORMATION CONCERNING EXAMINATIONS

Examinations will be held at or near the time and place of meetings of the American Medical Association and of the American Academy of Pediatrics, or at other times and places at the discretion of the board, depending on the number of applicants from any region of the country. It is proposed to arrange examinations in different cities so that as little financial burden as possible will be placed upon the applicants in meeting the examiners.

The purpose of these examinations is to determine the applicant's competency to practice pediatrics. This board feels that the best impression of an applicant's ability can be obtained by oral examination although written ones may be substituted at times. However, at the present time this board is also giving a written examination at least six weeks preceding the oral examination. This written examination is given locally under a monitor. It is not proposed at the present time to require the applicant to send in case reports. The board feels that growth and development are fundamental parts of pediatric training.

It should be emphasized that competency in the *practice* rather than in the theory of pediatrics is required.

Communications should be addressed to the secretary.

THE AMERICAN BOARD OF PLASTIC SURGERY, INC.

JOHN STAIGE DAVIS, Chairman, Baltimore.
GEORGE M. DORRANCE, Vice Chairman, Philadelphia.
JAMES BARRETT BROWN, Secretary-Treasurer, 400 Metropolitan Building, St. Louis.
GUSTAVE AUFRICHT, New York.
VILRAY P. BLAIR, St. Louis.
ROBERT H. IVY, Philadelphia.
HAROLD L. D. KIRKHAM, Houston, Texas.
WILLIAM S. KISKADDEN, Los Angeles.
SUMNER L. KOCH, Chicago.
WILLIAM E. LADD, Boston.
GORDON B. NEW, Rochester, Minn.
GEORGE WARREN PIERCE, San Francisco.
ERNEST FULTON RISDON, Toronto, Ont., Canada.
FERRIS SMITH, Grand Rapids, Mich.
JEROME P. WEBSTER, New York.

HISTORY

The American Board of Plastic Surgery, tentatively organized in June 1937, by representatives of widely distributed groups interested in this special type of surgery, received recognition as a subsidiary of the American Board of Surgery in May 1938, and was given the status of a major board in May 1941 by the Advisory Board for Medical Specialties. It is composed of representatives from the American Association of Plastic Surgeons, the Surgical Section of the American Medical Association, the American Surgical Association, the Southern Surgical Association and the American College of Surgeons.

The aim of the American Board of Plastic Surgery is to encourage the study, improve the practice, and advance the cause of plastic surgery, and to grant and to issue certificates of recognition of special knowledge in plastic surgery to surgeons meeting the requirements.

PURPOSES OF THE BOARD

The purposes of the board are:

1. To elevate and establish standards of fitness to practice plastic surgery.

2. To arrange and conduct examinations for determining the qualifications of those who request a certificate of their ability in the field of plastic surgery, to establish qualification requirements for applicants, and to confer certificates upon those who meet the requirements of the board.

3. To improve and widen the existing opportunities for the training of the plastic surgeon.

4. To study and evaluate local and foreign teaching centers and opportunities for experience in and the study of plastic surgery.

GENERAL QUALIFICATION REQUIREMENTS

1. Moral and ethical standing in the profession satisfactory to the board.

2. Membership in the American Medical Association, or, by courtesy, membership in such Canadian or other medical societies as are recognized for this purpose by the Council on Medical Education and Hospitals of the American Medical Association.

PROFESSIONAL QUALIFICATION REQUIREMENTS

1. Graduation from a medical school recognized by the Council on Medical Education and Hospitals of the American Medical Association.

2. Completion of an internship of not less than one year in a hospital approved by the said Council, or what would constitute, in the opinion of the board, the equivalent of such training.

3. A period of graduate study in surgery of not less than two years beyond the intern year to be taken in a recognized graduate school or hospital.

4. An additional period of not less than two years of graduate study in plastic surgery, also to be taken in a recognized graduate school or hospital. This period of training shall cover the technical and clinical phases of plastic surgery, and the basic sciences of anatomy, physiology, pathology, bacteriology, and biochemistry as they are related to plastic surgery.

5. An additional period of two years of surgical practice, a fair percentage of which shall be in plastic surgery.

The above training may be taken in a recognized graduate school of medicine, or as resident in surgery in an acceptable hospital, or under a sponsorship accredited by the American Board of Plastic Surgery for such training. By the latter statement is meant that one may secure the necessary training as an assistant to an accredited surgeon, provided suitable facilities for the education of the candidate are offered. It is understood that the board will accept a combination of such training as outlined above; for example, one may take a graduate course in an acceptable graduate school for one year, a residency for two years, and an assistantship in plastic surgery for two years. Where circumstances permit the applicant to major in plastic surgery during the second of the two years on a general surgical service, the second year of the two years of general training may, with the approval of this board, be credited on his period of special training in plastic surgery.

In exceptional instances, the board may, at its discretion, accept for examination candidates who have met all the above preliminary requirements, have been graduated in medicine at least ten years but whose formal training does not comply with the full requirements to be exacted in the future.

CLASSIFICATION OF APPLICANTS

Group A—Founders' Group.—Those to be certified without formal examination as to professional qualifications. This group shall be composed of men who have already amply demonstrated their fitness to do acceptable plastic surgery and who have been graduated in medicine at least ten years. (This group is now closed.)

Group B—Examinees' Group.—Those to be formally examined as to professional qualifications. To be eligible for examination by this board, all candidates shall be required to possess the preliminary and basic medical qualifications accepted by the Advisory Board for Medical Specialties as applied to all specialties.

Applicants who have qualified under Group B shall be required to submit twenty-five diversified case reports, together with photographs of before and after treatment made from unretouched negatives.

EXAMINATIONS

The qualifying examination will be divided into Part I, written, and Part II, oral and practical.

Part I shall consist of a written examination upon questions prepared by the examining committee which concern the theory and practice of plastic surgery. In addition to the above, the examination shall include questions upon applied anatomy, applied physiology, pathology, clinical laboratory methods, local and general anesthesia, shock, hemorrhage, the handling of tissues, wound healing, related bacteriology, and surgical accidents, all as related to plastic surgery.

Part II shall, as far as possible, be of a practical nature, and shall be conducted by no fewer than two competent judges, selected by the examining committee.

The clinical examination shall include any or all of the following:

(a) The exhibition of patients who have undergone or who are undergoing treatment.

(b) Examination, diagnosis, and presentation of a plan of correction by the applicant of cases provided by the examiners.

(c) Oral examination of the applicant and observations made in the operating room, treatment rooms, and wards.

In order to be eligible for Part II of the examination, a candidate shall have successfully passed Part I.

A candidate shall be required to receive a passing average for each Part in order to receive the board's certificate. No candidate shall pass Part I or Part II of the examination who does not receive a grade of 65 per cent or over in each subject of each Part. An average grade of 75 per cent shall be considered as passing.

REEXAMINATIONS

Candidates may be reexamined as often as they desire, provided that one year shall elapse between examinations, except in such case as the board may, for good and sufficient reason, deny a candidate the privilege of reexamination.

FEES

The fee for the examination and the certificate of the American Board of Plastic Surgery is $100. Of this sum $25, which is not returnable, must accompany the case reports; $25 should be paid when Part I of the examination is taken, and $50 when Part II is taken. There shall be no refunds.

This fee may be increased at the discretion of the board, when the number of candidates decreases and when the expenses of the examinations and other activities of the board demand.

This board is a nonprofit organization. The fees of candidates are used solely for defraying the actual expenses of the board. The members of the board and their associates receive no emoluments. All surplus moneys derived from fees will be used to aid in improving existing opportunities for the training of plastic surgery.

CERTIFICATION

A certificate, bearing the seal of the board and the signatures of its officers, will be issued to each successful candidate attesting his qualification in plastic surgery.

It is the board's prerogative to determine the fitness professionally and ethically of any candidate for its certificate.

The action or decision of the American Board of Plastic Surgery regarding the certification of any candidate shall be final.

REVOCATION OF CERTIFICATE

The American Board of Plastic Surgery shall have the sole power, jurisdiction, and right to determine and decide whether or not the evidence or information placed before it is sufficient to constitute grounds for revocation of any certificate issued by the board, and the decision of the board in the premises shall be final.

Address communications to the secretary.

AMERICAN BOARD OF PSYCHIATRY AND NEUROLOGY, Inc.

OFFICERS

C. MACFIE CAMPBELL, President, Boston.

HANS H. REESE, Vice President, Madison, Wis.

WALTER FREEMAN, Secretary-Treasurer, 1028 Connecticut Avenue N.W., Washington.

DIRECTORS

PERCIVAL BAILEY, Chicago.

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H. HOUSTON MERRITT, Boston.

JOHN M. MURRAY, Boston.

J. M. NIELSEN, Los Angeles.

TRACY J. PUTNAM, New York.

EDWARD A. STRECKER, Philadelphia.

LLOYD H. ZIEGLER, Wauwatosa, Wis.

HISTORY AND STATEMENT OF PRINCIPLES

The American Board of Psychiatry and Neurology was founded in 1934 following conferences of committees appointed by the American Psychiatric Association, the American Neurological Association, and the Section on Nervous and Mental Diseases of the American Medical Association. This action was taken in response to a widespread desire among specialists in psychiatry and neurology for some means of distinguishing the fully qualified specialist from the would-be specialist of inferior training and inadequate experience. That this desire is by no means limited to those who practice psychiatry and neurology is indicated by the formation of corresponding boards covering internal medicine, surgery, and the major specialties. The success of this method of distinguishing the specialists is indicated by the increasing number of candidates taking the

examinations, and by the listing accorded in the American Medical Directory to those specialists holding the certificates of the various boards.

CONSTITUTION AND ACTIVITIES

The American Board of Psychiatry and Neurology is composed of twelve members, four each from the American Neurological Association and from the American Psychiatric Association and two neurologists and two psychiatrists elected by the Section on Nervous and Mental Diseases of the American Medical Association. Annual elections to fill the places of members whose terms have expired take place in each of the nominating associations with the understanding that neurology and psychiatry are always equally represented on the board. The board holds annual meetings in December of each year for the transaction of whatever business may come before it and also holds special meetings for the purpose of examining candidates and of passing upon the qualifications of those seeking the certificate without examination.

FUNCTIONS

(a) To determine the competence of specialists in psychiatry and neurology.

(b) To arrange, control and conduct investigations and examinations to test the qualifications of voluntary candidates for certificates issued by the board.

(c) To grant and issue certificates or other recognition of special knowledge in the field of psychiatry and neurology to successful voluntary applicants therefor.

(d) To serve the public, physicians, hospitals and medical schools by preparing lists of practitioners who shall have been certified by the board.

(e) To consider and advise as to any course of study and technical training, and to diffuse any information calculated to promote and ensure the fitness of persons desirous of qualifying for a certificate of qualification to be issued thereby.

INFORMATION FOR APPLICANTS

EXCERPTS FROM ARTICLE VII OF THE BY-LAWS

SECTION 1. *Application for Certificates.* Application for certificates shall be considered by the secretary only when made formally on the official application blank in such form as may be adopted from time to time by the board of directors and when accompanied by an application fee in such amount as may be fixed from time to time by the board of directors.

SECTION 2. *Form of Certificates.* There shall be separate certification in psychiatry and in neurology and two certifications or a combined certification for those qualified in both fields. The certificates shall be in such form as is approved by the board of directors.

SECTION 3. *Requirements for Applicants.* Each applicant for a certificate must establish that—

(a) He is a physician duly licensed by law to practice medicine.

(b) He is of satisfactory ethical and professional standing.

(c) He is now a member of the American Medical Association, or a member of such medical societies as are recognized for purposes of certification by the Council on Medical Education and Hospitals of the American Medical Association. Exceptions to the foregoing may be made at the discretion of the board for good and sufficient reasons.

(d) He has received adequate training in psychiatry or neurology, or both, as a specialty.

SECTION 4. No candidate is eligible for examination by the board until he has completed at least five years of special training and experience in neurology or psychiatry for a single certificate, or at least six years of training and experience for certification in both neurology and psychiatry.

CLASSES OF APPLICANTS AND FEES

Applicants may request certification in psychiatry, or in neurology, or in both psychiatry and neurology.

Limitation of practice to the specialty of psychiatry and/or neurology need not be complete provided a candidate both by his previous training, experience and standing, and by examination, can prove his competency to practice that specialty.

However, in case a physician has already been certified by one of the other boards as a specialist in another field, he will not be considered for certification in psychiatry and/or neurology except under special circumstances.

Class I

Physicians who graduated from medical school in 1919 or before and who have carried on specialized practice in neurology and/or psychiatry for at least fifteen years are to be considered on their professional record and passed, if satisfactory to the Board, or further evidence of qualification or examination may be required.

A candidate in Class I who has received certification in either psychiatry or neurology may apply within three years for certification in the other field without additional fee. After three years such application shall be considered as a new application with corresponding fees.

When certification in Class I has been refused, the candidate may file application for reconsideration within three years without additional fee. After three years such application for reconsideration shall be considered as a new application with corresponding fees.

Class II

Physicians who graduated from medical school up to and including 1929 and who have practiced the specialty of psychiatry and/or neurology for at least five years will be required to pass an examination in psychiatry or neurology, or both.

Class III

Physicians who graduated after 1929, up to and including 1934, will be required to pass an examination to satisfy the board that they have adequate knowledge of all subjects specified in the by-laws for candidates graduating after 1934. Their previous training and experience must be acceptable to the board.

Class IV

Candidates graduating from medical school after 1934 shall fulfil the preceding general requirements as given in Section 3 of Article VII and the following special requirements:

PROFESSIONAL EDUCATION

(1) Graduation from a medical school approved by the Council on Medical Education and Hospitals of the American Medical Association.

(2) Completion of a general internship of not less than one year in a hospital approved by the same Council.

SPECIAL TRAINING

(These requirements are to be placed in force as soon as practicable after Jan. 1, 1944. In the meantime a syllabus covering the knowledge required of the candidate has been prepared and is available to those who request it.)

Admission to the examination for certification in neurology or psychiatry requires a total experience of not less than five years. This period shall include the following:

1. A period of study, after the general internship, of not less than three full years in institutes, hospitals, clinics, dispensaries, laboratories, and other institutions recognized by the Council of the American Medical Association and approved by the American Board of Psychiatry and Neurology as competent to provide a satisfactory training in psychiatry and/or neurology.

(a) As subject matter,

Neuro-anatomy	Psychobiology
Neurophysiology	Psychopathology
Neuropathology	Neuroroentgenology
Clinical neurology	Clinical psychiatry

and other basic medical sciences, which, in the opinion of this board, are necessary to the proper understanding and treatment of psychiatric and/or neurologic disorders.

2. An additional period of not less than two years of practice in psychiatry and/or neurology.

3. Candidates wishing to be admitted to the examinations for certification in both fields must have had a minimum of six years of experience in both fields.

PAYMENT OF FEES

The candidate on filing his application shall accompany it with an application fee of $25. When notified by the secretary that he is eligible for examination he shall send the examination fee of $25 to the secretary at least two weeks before the date of the examination. The certification fee of $25 is payable upon notification by the board that certification has been awarded the candidate in Class I on his record. No fees will be returned.

The same examination is given whether a candidate applies for certification in psychiatry, or in neurology, or in both psychiatry and neurology. The board requires some proficiency in neurology on the part of those it certifies in psychiatry and vice versa, but judges the candidate in accordance with the certificate he seeks.

Should a candidate receive certification in either psychiatry or neurology, he may apply within three years for partial examination for the certificate in the complementary subject, upon payment of a complementary examination fee of $10. After three years, the second application shall be considered a new application, with corresponding $25 fees.

EXAMINATIONS

Date and places of examination are set by the board at its discretion and are announced in *The Journal of the American Medical Association*, in the *American Journal of Psychiatry*, in the *Journal of Nervous and Mental Disease*, and in the *Archives of Neurology and Psychiatry*.

The examinations are designed to test the ability of the candidates to meet the situations in which they might at any time be called upon as specialists to assume responsibility. They will be of such a type that no adequately trained individual will fail, yet they will be sufficiently searching so that the specialist-in-fact will be separated from the specialist-in-name. Each candidate is required to identify and to discuss the function of the more important anatomic structures in the brain and spinal cord, to discuss gross and microscopic pathologic specimens and to interpret roentgenograms dealing with neurologic disorders. He is examined orally on the subjects of psychobiology and psychopathology. These examinations in the preclinical subjects usually last about two hours. Each candidate examines two patients with neurologic disorders and two with psychiatric disorders, and discusses with the examiners the various problems involved. One hour, on the average, is allotted to each of these four clinical examinations. The manner of examining both neurologic and psychiatric patients and the reasoning and deductions therefrom constitute the most important part of the examination. Some acquaintance with the history of psychiatry and neurology, with the body of doctrine, and with the recent advances, is presupposed.

REEXAMINATIONS

A candidate who has failed in one examination is eligible to reexamination in the whole subject, within three years, on payment of a reexamination fee of $10. A candidate who has failed in one examination and who does not apply for reexamination within three years or a person who has applied within that time but who has failed a second time will be considered a new applicant, with corresponding $25 fees. The $10 reexamination fee also applies to candidates conditioned in one or more subjects at any time within three years of the first examination, and is payable before each reexamination.

HANDLING OF APPLICATIONS

An application, in order to be considered at any meeting, must be in the hands of the secretary of the board not less than seventy days before the date of such meeting.

The secretary of the board on receipt of an application shall forthwith make inquiries from those to whom the candidate refers and from such other persons as the secretary may deem desirable and shall verify the candidate's record from the biographical records of the American Medical Association, after which he shall forward the application to the committee on credentials. This committee shall consider the application and other information available and notify the secretary whether the application is accepted. The certification of a candidate in either psychiatry or neurology, or both, shall be approved by a majority of the members of the entire Board at any meeting held for such certification.

PLEDGE

Each candidate is required to sign the following pledge:

"I hereby make application to the American Board of Psychiatry and Neurology, Incorporated, for the issuance to me of a certificate of qualification as a specialist in (a) Psychiatry; (b) Neurology; (c) Psychiatry and Neurology (check the one desired) and for examination relative thereto, all in accordance with and subject to its rules and regulations. Upon the issuance of the certificate I agree to and do become bound by the by-laws of the American Board of Psychiatry and Neurology, Inc., insofar as applicable.

"I agree to disqualification from examination or from the issuance of a certificate of qualification or to forfeiture and redelivery of such certificate of qualification in the event that any of the rules governing such examination are violated by me or for any one of the reasons set forth in the by-laws. I agree to hold said American Board of Psychiatry and Neurology, Inc., its members, examiners, officers and agents, free from any damage or claim for damage or complaint by reason of any action they, or any of them, may take in connection with this application, such examination, the grade or grades given with respect to any examination, and/or the failure of said corporation to issue to me such certificate of qualification."

RULES AND REGULATIONS
(ART. VII, SEC. 5, OF THE BY-LAWS)

The board of directors, from time to time, by resolution adopted by the affirmative vote of a majority then in office, may adopt, amend and repeal rules and regulations respecting requirements of applicants, the nature and extent of examinations and investigations and issuance of certificates.

REVOCATION OF CERTIFICATES
(ART. VII, SEC. 6, OF THE BY-LAWS)

All certificates issued by the corporation shall be issued subject to the provisions of the certificate of incorporation and of the by-laws of the American Board of Psychiatry and Neurology, Inc. Each such certificate shall be subject to revocation in the event that:

(a) The issuance of such certificate or its receipt by the physician shall have been contrary to or in violation of any of the provisions of the corporation's certificate of incorporation or by-laws; or

(b) The physician so certified shall not have been eligible in fact to receive such certificate, irrespective of whether or not the facts constituting him so ineligible were known to any or all of the directors of the corporation or could have been ascertained by any or all of the directors of the corporation at the time of the issuance of such certificate; or

(c) The physician so certified shall have made any deliberate misstatement of fact in his application for such certificate or in any other statement or representation to the corporation, its directors, representatives or agents; or

(d) The physician so certified shall have been convicted by a court of competent jurisdiction of a felony or of any misdemeanor involving, in the opinion of the board of directors of the corporation, moral turpitude in connection with his practice of medicine; or

(e) The physician so certified shall have had his license to practice medicine revoked or shall have been disciplined or censored as a physician by any court or other body having proper jurisdiction and authority.

FORM OF CERTIFICATE

The secretary shall have prepared subject to the approval of the board members a form of certificate containing the following wording:

THE AMERICAN BOARD OF PSYCHIATRY AND NEUROLOGY, INC.

This is to certify that.....has satisfied the requirements of the board and is hereby certified as qualified to practice the specialty of Psychiatry and/or Neurology.

(Signed) President.....
Vice President.....
Secretary .....

Communications should be addressed to the secretary.

AMERICAN BOARD OF RADIOLOGY, Inc.

GEORGE W. HOLMES, President, Boston.
J. W. PIERSON, Vice President, Baltimore.
B. R. KIRKLIN, Secretary-Treasurer, 102 Second Avenue. S.W., Rochester, Minn.
D. S. CHILDS, Syracuse, N. Y.
A. C. CHRISTIE, Washington, D. C.
EDWIN C. ERNST, St. Louis.
EDWARD L. JENKINSON, Chicago.
LYELL C. KINNEY, San Diego, Calif.
U. V. PORTMANN, Cleveland.
DOUGLAS QUICK, New York.
LEROY SANTE, St. Louis.
E. H. SKINNER, Kansas City, Mo.
M. C. SOSMAN, Boston.
ROLLIN H. STEVENS, Detroit.
BERNARD P. WIDMANN, Philadelphia.

HISTORY AND AUTHORITY FOR ORGANIZATION

The medical profession has long felt that there should be a standard of minimal requirements for the practice of any specialty in medicine in order to protect the public, the profession in general, and the specialists themselves. Some of the states have attempted by statute to prescribe such requirements in certain branches. Unless a better method of regulation were found, the other states would be likely to enact similar laws. The result would be forty-eight different standards for each of the many medical specialties. Obviously, a more practicable solution would be for each special group to put its own house in order and place its mark of approval on those qualified to practice as specialists in that particular field. Accordingly, in

1932, five nation-wide radiologic organizations, the Section on Radiology of the American Medical Association, the American Roentgen Ray Society, the Radiological Society of North America, the American College of Radiology, and the American Radium Society, each appointed a committee of three members to confer and investigate the feasibility of establishing a qualifying board. The following men were appointed by these five organizations: Drs. G. W. Holmes, J. W. Pierson, E. L. Jenkinson, W. E. Chamberlain, E. C. Ernst, W. F. Manges, L. R. Sante, L. C. Kinney, A. C. Christie, Albert Soiland, W. W. Wasson, Henry Schmitz, Lester Hollander, Rollin H. Stevens and B. R. Kirklin.

This combined committee met at Milwaukee in 1933, during the meeting of the American Medical Association, agreed unanimously that such a board should be established and so reported to the respective organizations. Each of the organizations approved the report, appointed three representatives, and empowered them to proceed to the formation of a national radiologic board. The members of the board thus chosen were: Drs. W. F. Manges, L. R. Sante and B. R. Kirklin, representing the American Roentgen Ray Society; Drs. A. C. Christie, E. C. Ernst and E. L. Jenkinson (succeeding Dr. Byron H. Jackson, originally appointed) representing the American College of Radiology; Drs. R. H. Stevens, Henry Schmitz and H. K. Pancoast, representing the American Radium Society; Drs. L. J. Menville, M. C. Sosman and Albert Soiland, representing the Radiological Society of North America, and Drs. L. C. Kinney, J. W. Pierson and G. W. Holmes, representing the Section on Radiology of the American Medical Association.

The board was incorporated, organized and held its first meeting in Washington, D. C., in May 1934; at that time the by-laws were adopted and provision was made by resolution for its proper function. The officers of the board elected at this meeting were:

Dr. H. K. Pancoast, President.
Dr. A. C. Christie, Vice President
Dr. B. R. Kirklin, Secretary-Treasurer.

This move put into action the determined effort on the part of these five national organizations to improve the standards of the practice of radiology. It expects to accomplish this by various activities, such as the investigation and encouragement of facilities for graduate extension study and active clinical assistantships for men desiring to specialize in radiology; it will endeavor by regular examinations to determine the competence of specialists in radiology who apply for the certificate.

During 1934 the American Board of Radiology was accepted for membership in the Advisory Board for Medical Specialties and was also approved by the Council on Medical Education and Hospitals of the American Medical Association. Hereafter the list of Diplomates of the Board will take the place of the Council's list of approved radiologists, and the latter list will be discontinued.

PURPOSES

First: To encourage the study and promote and regulate the practice of radiology.

Second: To elevate the standards and advance the cause of radiology by encouraging its study and improving its practice.

Third: To determine the competence of specialists in radiology; to arrange, control and conduct investigations and examinations; and to test the qualifications of voluntary candidates for certificates to be issued by the board.

Fourth: To serve the public, physicians, hospitals and medical schools by preparing lists of practitioners who shall have been certified by the board.

VALUE OF CERTIFICATE

The national radiologic organizations which have participated in the formation of the board and are sponsoring its activities, as well as other organizations, attach considerable importance to its certificate. It is expected that both the medical and the lay public, including hospital directors, will soon come to utilize the certificate from this board as a means of discriminating between those who are well grounded as specialists in radiology and those who are not.

To this end lists of those holding certificates from this board will be published and issued from time to time by the board. Similar lists will be published by the *American Journal of Roentgenology and Radium Therapy, Radiology,* and *The Journal of the American Medical Association.* The Directory of the American Medical Association will indicate by a numerical symbol in the biographic data of those whose names are eligible to appear on these lists that they are diplomates of this board.

For emphasis it is repeated that the board does not intend in any way to interfere with or limit the professional activities of any duly licensed physician, but it does aim toward standardized qualifications for those who claim to be specialists in radiology.

CERTIFICATES

A certificate will be issued to each candidate who meets the requirements of the board, to the effect that the holder of the certificate has had adequate training in radiology and has successfully fulfilled the requirements of the board.

A certificate granted by this board does not of itself confer, or purport to confer, any degree, or legal qualifications, privileges, or license to practice radiology. Certificates of the board shall be issued upon one of two forms:

1. A certificate to the effect that the applicant has been found qualified to practice radiology in all its branches.

2. A certificate to the effect that the applicant has been found qualified to practice radiology in one or more of the following special fields: (a) roentgenology; (b) diagnostic roentgenology; (c) therapeutic radiology.

DEFINITIONS

For the purposes of this board, the following definitions are adopted:

1. Radiology is that branch of medicine which deals with the diagnostic and therapeutic application of radiant energy including roentgen rays and radium.

2. Roentgenology is that branch of radiology which deals with diagnostic and therapeutic application of roentgen rays.

3. Diagnostic roentgenology is that branch of radiology which deals with the diagnostic application of roentgen rays.

4. Therapeutic radiology is that branch of radiology which deals with the therapeutic application of roentgen rays and radium.

GENERAL REQUIREMENTS

Each applicant for admission to the examination shall be required to present evidence that he has met the following standards:

(A) General Qualifications

1. Satisfactory moral and ethical standing in the profession.

2. A license to practice medicine in the state or county in which he resides.

3. Membership in the American Medical Association, or membership in such Canadian or other medical societies as are recognized for this purpose by the Council on Medical Education and Hospitals of the American Medical Association. Except as herein provided, membership in other societies shall not be required.

4. That the applicant holds himself out to be a specialist in radiology or one of its branches as defined under "Definitions," and that he devotes his time primarily and principally (at least 75 per cent) to the practice of radiology or one of its branches.

5. That he is a citizen of the United States or Canada. Candidates from other countries must be permanent residents of that country and native citizens thereof.

(B) General Professional Education

1. Graduation from a medical school recognized by the Council on Medical Education and Hospitals of the American Medical Association. If the applicant is a resident of the United States or one of its possessions and is a graduate of a medical school outside the United States or Canada, he must have a certificate of The National Board of Medical Examiners.

2. Completion of an internship of not less than one year in a hospital approved by the same Council.

(C) Special Training

(Applicable to candidates who begin their training on or after January 1, 1942, and to all candidates examined after January 1, 1945.)

1. After completion of the internship there shall be a period of special training in radiology of not less than three years in clinics, hospitals or dispensaries recognized and approved by The American Board of Radiology and the Council on Medical Education and Hospitals of the American Medical Association as competent to provide a satisfactory training in radiology. This period of specialized training shall include:

(a) Graduate training in pathology, radiation physics and radiobiology.

A period of six months full-time training in pathologic anatomy is recommended but where this is not possible to arrange the student, during his three-year training period may, by attending pathologic conferences, postmortem examinations and studying removed tissues, receive adequate training in pathology. It is recommended that radiation physics be taught by a combination of didactic lectures, practical examples, and direct clinical demonstrations.

(b) An active experience (residency) of not less than twenty-four months in an institution, the radiologic department of which is recognized and approved by The American Board of Radiology and the Council on Medical Education and Hospitals of the American Medical Association as capable of providing satisfactory training.

By special permission of the board all or part of this training may be obtained under the immediate preceptorship of a radiologist or group of radiologists recognized by The American Board of Radiology as offering appropriate facilities for this type of postgraduate experience. Or the board will accept a combination of training as outlined in (a) and (b)—for example, one may take a graduate course, including the basic sciences, in an accredited graduate school for one year, a residency for one year, and a preceptorship for one year; or he may take a graduate course for one year plus either a residency or preceptorship for two years.

(c) Examination in the basic sciences of radiology as well as the clinical aspects thereof.

These examinations should be given by the student's instructors in order to allow those responsible for his training to certify to the board that he is adequately prepared.

In the current emergency the board will allow one year of military service spent in a radiologic department in the United States Army, Navy or Marine Corps to be applied toward the satisfaction of one year of graduate training.

APPLICATIONS

The board desires to appraise the candidate's educational opportunities (premedical, medical and radiologic), the ability of his instructors, his hospital and teaching positions, his original investigations, his contributions to radiologic literature, his membership in medical societies, and his local and general reputation.

For this purpose, application must be made on a special blank which may be obtained from the secretary. No application will be considered unless made on the regular application blank. This application shall be forwarded with the required data, two unmounted photographs, and the fee of $35, at least two months before the date of the examination.

FEE

A fee of $35 must accompany each application blank. This fee will not be returned and no application will be considered until the fee is received. This fee has been carefully computed and is used entirely for administrative purposes. Members of the board and special examiners do not receive any compensation except for actual expenses connected with holding the examinations. As the number of candidates decreases, it may become necessary to raise the fee.

Checks should be made payable to the American Board of Radiology.

EXAMINATIONS

Each year the board will hold an examination in conjunction with the annual meeting of the American Medical Association, and, when sufficient applications are on file, a second examination will be held in conjunction with the annual meeting of the American Roentgen Ray Society and/or the Radiological Society of North America.

For the present, examinations consist of practical and oral examinations, although written examinations may be added later. The examinations are designed to test the candidate's fitness to practice radiology or one of its branches as a specialty. The board will endeavor to adapt this examination to the candidate's experience and years of practice. It will try especially to ascertain the breadth of his clinical experience, his knowledge of the basic sciences of radiology, and likewise his knowledge of the recent literature on radiology, and his general qualifications as a specialist in this branch of medicine.

The examination consists of tests in film interpretation and an oral examination in pathology, physiology, radiophysics and radiobiology, as well as the clinical applications of roentgen rays and radium. The applicant is also examined in "professional adaptability," in an attempt to ascertain his attitude toward his fellow practitioners and his patients.

Whenever an applicant fails to pass the examination, the board, if requested, will make suggestions as to suitable courses of instruction for the purpose of overcoming his deficiencies.

REEXAMINATIONS

If the candidate fails in the first examination he will be admitted to a second examination after one year has elapsed but not more than three years. He must give sixty days' notice of his intention to appear for reexamination, and pay an additional fee of $15. If a candidate who has failed does not appear for reexamination before the expiration of three years, he will be required to make a new application and pay an additional fee of $35.

A candidate having failed twice may, after one year has elapsed, file a new application which must be accompanied by the fee of $35.

FINAL ACTION OF THE BOARD

The final action of the board is based on the applicant's professional record, training, and attainments in the field of radiology, as well as on the results of his examination. Any radiologist who is practicing radiology honorably and efficiently should have no difficulty in obtaining a certificate. This board has been organized, not to prevent qualified radiologists from obtaining certificates, but to assist them in becoming recognized in their communities as men competent to practice in the special field of radiology.

REVOCATION OF CERTIFICATES

Certificates issued by this board are subject to the provisions of the Articles of Incorporation and the By-Laws. According to Article IX, Section 4, of the By-Laws "Any certificate issued by the Board of Trustees shall be subject to revocation in the event that:

(a) The issuance of such certificate or its receipt by the physician so certified shall have been contrary to or in violation of any provision of the Certificate of Incorporation of this the American Board of Radiology or of these by-laws; or

(b) The physician or party so certified shall not have been eligible in fact to receive such certificate; or

(c) The physician or party so certified shall have made any mis-statement of fact in his application or in any other communication to the board or its representatives; or

(d) The physician or party so certified shall have been convicted by a court of competent jurisdiction of a felony or of any misdemeanor involving, in the opinion of the Board of Trustees, moral turpitude; or

(e) If the physician or party so certified shall have had his license to practice medicine revoked or shall have been expelled from one of the societies or organizations which is represented by this corporation through eligibility of such society or organization to nominate and appoint members of this corporation."

Communications should be addressed to the secretary.

AMERICAN BOARD OF SURGERY, Inc.

ALLEN O. WHIPPLE, Chairman, New York.
FRED W. RANKIN, Vice Chairman, Lexington, Ky.
J. STEWART RODMAN, Secretary-Treasurer, 225 S. 15th Street, Philadelphia.
EDWARD D. CHURCHILL, Boston.
FREDERICK A. COLLER, Ann Arbor, Mich.
VERNON C. DAVID, Chicago.
DANIEL C. ELKIN, Atlanta, Ga.
ARTHUR W. ELTING, Albany, N. Y.
THOMAS M. JOYCE, Portland, Ore.
THOMAS G. ORR, Kansas City, Kan.
MONT R. REID, Cincinnati.
ERWIN R. SCHMIDT, Madison, Wis.
PHILEMON E. TRUESDALE, Fall River, Mass.

HISTORY

The organization of the American Board of Surgery was completed on Jan. 9, 1937. A plan for this organization had been carefully studied by a general committee representative of certain general and sectional surgical societies called together

through the initiative of the American Surgical Association. As a result of the deliberations of this general committee a tentative plan of organization was adopted. This plan was reported to the cooperating surgical societies and was approved with the understanding that the board, when organized, would have the power to change or modify the proposed plan as it saw fit. This board has been created in accordance with the action of the Advisory Board for Medical Specialties as approved by the Council on Medical Education of the A. M. A., which has named certain specialty fields as being suitable to be represented by such boards. These boards have the two-fold purpose of certifying those found to be qualified after meeting reasonable requirements, and of improving existing opportunities for the training of specialists within the field concerned. This is to be done for the protection of the public and the good of the specialty.

PERSONNEL

* The cooperating surgical societies selected jointly to form the board appointed their representatives as follows:

The American Surgical Association	3
The Surgical Section of the A. M. A.	3
The American College of Surgeons	3
The Southern Surgical Association	1
The Western Surgical Association	1
The Pacific Coast Surgical Association	1
The New England Surgical Society	1
	13

The term of membership is for six years. Each cooperating association has the appointing power of its representatives subject to the approval of the board.

PURPOSES

(a) To conduct examinations of satisfactory candidates who seek certification by the Board.

(b) To issue certificates of qualification to all those meeting the board's requirements.

(c) To improve the opportunities for the training of the surgeon.

REQUIREMENTS

(A) GENERAL QUALIFICATIONS

1. Moral and ethical standing in the profession satisfactory to the board.

The board, believing that the practice of "fee splitting" is pernicious, leading as it does to a traffic in human life, will reserve the right to inquire particularly into any candidate's practice in regard to this question.

2. Membership in the American Medical Association or, by courtesy, membership in such Canadian or other medical societies as are recognized for this purpose by the Council on Medical Education and Hospitals of the A. M. A. Except as here provided, membership in other societies shall not be required.

3. Those who have limited their activities to the practice of surgery.

4. In exceptional instances the board may, in its discretion, accept for examination candidates who have met all preliminary requirements and have been in practice from six to sixteen years but whose formal training does not comply with the full requirements to be exacted in the future.

The board recognizes two groups of candidates who may be eligible for certification.

(A) The Founders Group — those who have already amply demonstrated their fitness as trained specialists in surgery. Application for membership in this group was open until Jan. 9, 1940. Those who received the board's approval were accepted for membership without examination from the following:

1. Those who from the time of the board's organization, Jan. 9, 1937, held the position of professor or associate professor of surgery in the approved medical schools of the United States or Canada.

2. Those who for fifteen years prior to the board's organization limited their practice to surgery and met the general qualifications required.

3. Such members of the cooperating societies represented on the board, in good standing Jan. 9, 1937, who were invited to membership in this group.

This group was closed Jan. 1, 1940; no further applications received.

(B) Qualified by examination—

In addition to the general qualifications the requirements for this group shall be as follows:

(B) PROFESSIONAL STANDING

1. Graduation from a medical school of the United States or Canada recognized by the Council on Medical Education and Hospitals of the A. M. A., or graduation from an approved foreign school.

2. Completion of an internship of not less than one year in a hospital approved by the same Council, or its equivalent in the opinion of the board. This internship may be rotating or one devoted to a single branch of medicine as, for example, surgery, medicine, pathology, etc.

(C) SPECIAL TRAINING

After the completion of the year's internship there shall be a period of special training in surgery of not less than five years. During this period one's entire time must be devoted to surgical training supplemented by sufficient experience in the basic sciences to comply with the provisions of paragraph 2. Such training may be taken in a recognized graduate school of medicine, as resident in surgery in an acceptable hospital, or under a sponsorship accredited by the American Board of Surgery for such training.† By the latter statement is meant that one may secure the necessary training as an assistant to an accredited surgeon, provided suitable facilities for the education of the candidate are offered. By an accredited surgeon is meant one who has been certified by the American Board of Surgery or whose professional standing is acceptable to this board. It is understood that the board will accept a combination of training as outlined above—

(For example, one may take a graduate course in an acceptable graduate school for one year, a residency for two years, and an assistantship of two years.)

This period of special training shall be of such character that the relation of the basic sciences of anatomy, physiology, pathology, bacteriology and biochemistry is emphasized. Knowledge of these sciences as applied to clinical surgery will be required in the examination.

Adequate operative experience in which the candidate has assumed the whole responsibility will be required.

The above requirements, especially those referring to surgical training, are subject to change from time to time as the existing opportunities for training in this field of specialization may be broadened.

In accordance with an action by the Advisory Board for Medical Specialties and subsequently approved by the American Board of Surgery a candidate who is not a citizen of the United States or Canada but who is a resident of either country shall have taken out first papers for citizenship and shall have been certified by either the National Board of Medical Examiners or licensed to practice medicine in the United States or Canada by a state board of licensure. A period of at least three years from the date of licensure to practice medicine in either of these countries must elapse before such a candidate may apply for qualification.

The American Board of Surgery will certify to the qualifications of those limiting their work to proctology in the following manner:

A. The board will issue to those established in this field, who have been selected by a cooperating committee of recognized proctologists and approved by the American Board of Surgery, a certificate stating that such a candidate is qualified to practice proctology. This group is to be given this recognition without examination upon meeting the above requirements. As has been the custom for founder groups of all specialties this recog-

* The first three of these associations, being national in scope, were allotted three representatives each, the remaining associations, one.

† The board makes no attempt to classify hospital residencies, usually accepting those approved by the American College of Surgeons and the Council on Medical Education and Hospitals of the American Medical Association.

nition will be extended to those properly qualified who shall apply within two years or until Jan. 1, 1944.

B. For candidates who cannot be classified in Group A but who meet the following requirements the board will issue a certificate indicating that they have qualified by examination. The requirements exacted for this group are as follows:

1. To meet all of the requirements as exacted of those wishing to qualify in the field of general surgery with the exception that one of the five required years of training in surgery may be devoted to the proctologic field.

2. To pass the same examination as is given to those wishing to qualify in the general surgical field which is outlined elsewhere in this booklet.

3. To pass a special examination in proctology which will be given by a committee appointed by the proctologic group. This examination will be given on the morning of the day following the examination in Part II and shall be a practical (bedside) examination in proctology, including diagnosis and surgery of diseases of the colon, rectum and anus.

Those wishing to be certified in the proctologic field should so indicate when writing for an application blank.

EXAMINATIONS

The qualifying examination will be divided into Part I (written) and Part II (clinical, bedside and laboratory). In both of these parts, as previously stated, a knowledge of the practical application of the sciences fundamental to surgery will be required.

PART I

This may be given simultaneously in as many centers as the board may determine suitable for the purpose. A candidate to be eligible for Part I must meet all the requirements for Group B candidates. A card of admission to this part of the examination will be forwarded to the candidate from the secretary's office, certifying that these requirements have been met, as well as due notice as to the time and place of the examination.

The examination in Part I shall cover a one-day period. There shall be two sessions of three hours each. This written examination shall concern itself primarily with general surgical problems and in addition the application of the basic sciences of surgery to these problems.

PART II

In order to be eligible for Part II a candidate must have successfully passed Part I, in addition to having met the necessary preliminary requirements and having presented definite evidence of an adequate training in operative surgery satisfactory to the board.

This part of the examination shall be oral and practical and cover a one-day period, the schedule being arranged somewhat as follows:

8-9 A. M.—REGISTRATION

9 A. M.-12 Noon.—Clinical Surgery (diagnosis, management and the application of Physiology, Biochemistry and Bacteriology, as the case being examined upon may offer an opportunity for doing so. X-ray plate interpretation will also be included.)
2-5 P. M.—Applied Anatomy and Surgical Pathology.

The examinations in Part II are conducted in certain centers of the country selected by the board. It is the board's desire to arrange these centers so as to geographically meet the needs of the candidates, on condition that suitable examination facilities can be provided. The examination in this part will be conducted by members of the board living in the region of the country in which they are held, together with selected members of the Founders Group resident in the center chosen.

GRADES

A candidate must receive a passing average for each part to be entitled to the board's certificate. No candidate shall pass a part who does not receive a grade of 60% or over in each subject of such a part. An average grade of 75% shall be considered as passing in each part. The following values have been assigned to Part II on the basis of a total of 100%: Clinical Surgery 50%, Anatomy 30%, Pathology 20%.

A candidate who fails in his examination in Part I shall have his papers reviewed by the Examination Committee.

REEXAMINATIONS

Candidates may be reexamined as often as they desire provided one year shall elapse between examinations, except that the board may, for good and sufficient reason, deny a candidate the privilege of reexamination.

FEES

The fee for Group A, Founders Group, (closed Jan. 1, 1940) was $25.

The fee for Group B shall be $75 payable as follows: $5 registration fee, which shall be returned if the candidate is not accepted for examination; $20 for Part I and $50 for Part II.

Candidates shall be required to pay the same fees for Parts I and II at each reexamination in these parts.

The fee for a reexamination in a single subject shall be as follows: Clinical Surgery, $15; Anatomy, $10; Pathology, $10.

For those wishing to be certified in the proctologic field the fees shall be as follows:

The fee for the Founders Group in Proctology shall be $25.

The fee for the Examination Group in Proctology shall be as follows: In addition to the above fee of $75 as required of all Group B candidates a fee of $25 will be charged for the special examination in the proctologic field.

This board is a nonprofit organization. All fees will be used, after a reasonable amount is set aside for necessary expenses in maintaining its office, conducting examinations, etc., to aid in improving existing opportunities for the training of the surgeon.

CERTIFICATE

A certificate attesting to a candidate's qualification in surgery after meeting the requirements will be issued by the board, having been signed by its officers.

REVOCATION OF CERTIFICATE

Any certificate issued by the board shall be subject to revocation by the board at any time in case it shall determine in its sole judgment, that a candidate, who has received a certificate, either was not properly qualified to receive it or has become disqualified since its receipt.

Proper forms for making application and other information will be furnished by the secretary.

AMERICAN BOARD OF UROLOGY, Inc.

HERMAN L. KRETSCHMER, President, Chicago.
CLARENCE G. BANDLER, Vice President, New York.
GILBERT J. THOMAS, Secretary-Treasurer, 1409 Willow St., Minneapolis.
NATHANIEL P. RATHBUN, Brooklyn.
GEORGE GILBERT SMITH, Brookline, Mass.
CHARLES C. HIGGINS, Cleveland.
HENRY G. BUGBEE, New York.
ALFRED I. FOLSOM, Dallas, Texas.
THOMAS LEON HOWARD, Denver.

ORGANIZATION

At the annual meeting of the American Association of Genito-Urinary Surgeons held at Niagara Falls, Ont., Canada, May 26-28, 1932, Dr. William F. Braasch called attention to the various qualification boards which had been established, or were in the process of being established, for the certification of specialists. He suggested that a committee should be appointed from this organization to investigate the advisability of establishing a similar board for the specialty of urology. A committee consisting of Dr. Braasch as Chairman, Dr. Henry G. Bugbee, and Dr. Hugh H. Young was appointed. This committee reported to the society in 1933, was reappointed to continue its efforts, and was given the power to act.

At the meeting of the American Urological Association in 1933, Dr. George R. Livermore, in his presidential address, suggested that all candidates for specialization in urology should have some definite preparation, and should be required to take a thorough examination before being recognized as specialists in urology. Dr. Livermore appointed Dr. Joseph F. McCarthy, chairman; Dr. George Gilbert Smith, and Dr. Herman L. Kretschmer as a committee to study this suggestion.

At the annual meeting of the American Medical Association in Milwaukee, June 12-16, 1933, a committee consisting of Dr.

Montague L. Boyd, chairman; Dr. A. I. Folsom and Dr. Frank Hinman was appointed to cooperate with similar committees from the American Association of Genito-Urinary Surgeons and the American Urological Association in the establishment of the American Board of Urology.

The first combined meeting of the committees from these three organizations was held on Oct. 11, 1933, in Chicago. Dr. Herman L. Kretschmer was made president; Dr. Joseph F. McCarthy, vice president; and Dr. William F. Braasch, secretary. These men were elected to serve as temporary officers. A permanent organization could not be effected, however, because the committee from the American Urological Association had not been given the power to act.

The second meeting of these committees was held in New York City, Feb. 2, 1934. Dr. Nathaniel P. Rathbun, president of the American Urological Association, was present at this meeting.

At the annual meeting of the American Urological Association held in Atlantic City, N. J., May 22-24, 1934, the committee reported the activities of the temporary "Board of Urology." This report, which contained suggestions for the guidance of future committees from this association, was accepted, and a new committee was elected by the association, and was given the power to act.

The permanent "American Board of Urology, Inc.," was organized at Chicago, Sept. 24, 1934. The committee members present from the American Association of Genito-Urinary Surgeons were: Dr. William F. Braasch, Dr. Henry G. Bugbee, and Dr. Gilbert J. Thomas; those from the American Urological Association were: Dr. Nathaniel P. Rathbun, Dr. Herman L. Kretschmer, and Dr. George Gilbert Smith; those from the Section on Urology of the American Medical Association were: Dr. A. I. Folsom, Dr. T. Leon Howard, and Dr. Clarence G. Bandler.

The officers of the board elected at this meeting were: Dr. Herman L. Kretschmer, president; Dr. Clarence G. Bandler, vice president; Dr. Gilbert J. Thomas, secretary-treasurer.

The board was incorporated May 6, 1935, and held its first legal meeting May 10, 1935.

PURPOSES

The first objective of the American Board of Urology, Inc., is to render better service to the public by insuring the competence of any physician or surgeon who is specializing, or who wishes to specialize, in the field of urology. It will elevate the standards and advance the cause of urology. It will investigate the curricula of medical schools, and will encourage adequate facilities for graduate instruction in urology.

FUNCTIONS

(a) The board will arrange to control and conduct examinations testing the qualifications of volunteer candidates.

(b) The board will grant and issue certificates or other evidence of special knowledge in the field of urology to voluntary applicants or to candidates for certification.

(c) The board will endeavor to serve the public, hospitals, medical schools, medical societies and practitioners of medicine and surgery by preparing lists of urologists whom it has certified.

LIMITATIONS OF FUNCTIONS

The conferring of degrees, "Doctor of Medicine" or "Bachelor of Medicine" remains with the universities, where it belongs, and this board makes no attempt to control the practice of urology by license, or legal regulations. This board does not intend in any way to interfere with or limit the professional activities of any duly licensed physician.

REASON FOR APPLYING FOR A CERTIFICATE; ITS VALUE

The American Urological Association, the American Association of Genito-Urinary Surgeons, and the Section on Urology of the American Medical Association are interested in furthering the cause of urology and have participated in the formation of this board. They are sponsoring its activities. The various national medical societies, the public, hospital directors and others, will utilize the certification from this board as a means of discriminating between those well grounded as specialists in urology, and those who are not.

Lists of individuals who have certificates from this board, and who are engaged in the practice of urology may be published in the Directory of the American Medical Association and will be published in a booklet issued from time to time by the American Board of Urology, Inc. The directory of the American Medical Association may indicate, by symbols in the biographical data, those whose names are eligible to appear on the list of diplomates of this board.

Application for this certificate is purely voluntary. There is only one type of certificate. No indication is given as to whether or not the candidate received his certificate with or without examination. All certificates are identical.

The Advisory Board for Medical Specialties working in conjunction with, and reporting to, the Council on Medical Education and Hospitals of the American Medical Association, has set certain standards of preparation for specialization which the American Board of Urology, Inc., wishes to adopt. The advisory board has drawn from the experience of all the present functioning boards, and has been of inestimable assistance in the formulation of the Constitution and By-Laws for the Board of Urology. Other organizations which now successfully operate boards of certification are:

The American Board of Ophthalmology, the American Board of Otolaryngology, the American Board of Obstetrics and Gynecology, the American Board of Dermatology and Syphilology, the American Board of Pediatrics, the American Board of Psychiatry and Neurology, the American Board of Radiology, the American Board of Orthopedic Surgery, the American Board of Internal Medicine, the American Board of Pathology and the American Board of Surgery. Among the organizations cooperating with the Advisory Board for Medical Specialties are: the Association of American Medical Colleges, the American Hospital Association, the Federation of State Medical Boards of the U. S. A., and the National Board of Medical Examiners.

APPLICATION BLANK: REQUIREMENTS FOR ALL APPLICANTS

Application for certification must be made on a special blank. This will be provided by the secretary and must be returned to him accompanied by other required data and credentials, and by $15 of the examination fee.

Requirements for Applicants. (Article VIII, Section 2, of the By-Laws of the American Board of Urology, Inc.)

Each applicant, before he shall become eligible to take the examination for certification in urology, must:

A. Have graduated from a medical school of the United States or Canada recognized by the Council on Medical Education and Hospitals of the American Medical Association, and must have completed an internship of not less than one year in a hospital approved by the same council. (The former requirement is not applicable to a candidate who graduated from an institution now extinct, or whose graduation occurred before the American Medical Association had prepared a list of accredited medical schools.) All graduates of foreign medical schools must obtain a license in the state in which they propose to practice medicine and the certificate of the National Board of Medical Examiners before making application for certification.

B. Establish in a manner satisfactory to this board that he is a physician duly licensed by law to practice medicine, that he is of high ethical and professional standing and that he has received adequate special training in urology.

The board is attempting to increase and to standardize the facilities for urological training in teaching institutions, so that the expression "special training in Urology" may be interpreted to include:

1. A period of study, after the internship, of not less than three years in clinics, dispensaries, hospitals or laboratories recognized by the Council on Medical Education and Hospitals of the American Medical Association as competent to provide a satisfactory training in the special field of Urology.

This period of specialized preparation should include:

(*a*) graduate training in anatomy, physiology, pathology, and the other basic medical sciences which are necessary to the proper understanding of the disorders and treatment involved in the specialty of Urology.

(*b*) an active experience of not less than eighteen months in hospital clinics, dispensaries and diagnostic laboratories recognized by the Council on Medical Education and Hospitals of the American Medical Association as competent in the diagnosis and treatment of urologic conditions.

(*c*) examinations in the medical sciences basic to the specialty of Urology, as well as in the clinical, laboratory and public health aspects.

2. An additional period of not less than two years in the private practice of urology in the city from which he makes application.

These special requirements conform with the suggestions made by the Council on Medical Education and Hospitals of the American Medical Association.

C. Make application to the American Board of Urology, Inc., whose duty it shall be to investigate the applicant's credentials and make a survey of his character;

D. Assure the board that he is engaged in the practice of urology and that he intends to continue to be so engaged;

E. Membership in the American Medical Association, or comparable national medical society, is recommended.

FEE

The examination fee will be $75. Fifteen dollars must accompany the application. Sixty dollars is to be paid when the applicant is accepted as a candidate for certification. This is the total expense to the candidate. If a candidate fails in his examination, he will be permitted a second examination after one year, or within three years, without additional fee, but he must give sixty days' notice of his intention to appear for reexamination. After an applicant has failed twice, he must file a new application blank accompanied by a second fee. If an applicant is lacking in any of the requirements as stated above, he will be considered ineligible for examination and classification and his fee will be returned. In no other instance, however, will a refund of the examination fee be possible.

REQUIREMENTS FOR CERTIFICATION

According to the By-laws of the American Board of Urology, Inc., applications received from applicants for certification shall be examined by the Credentials Committee and reviewed by the board. When additional data are required to complete the application, these will be requested by the secretary's office.

The requirements for certification include: personal appearance before the board; preparation of fifty case reports of major urological cases under the candidate's own supervision which must contain all items essential for diagnosis, therapy, prognosis, results of treatment, etc.; oral and clinical examinations; written examinations.

In specific instances, the board may waive any part of these requirements, with the exception of the item of personal appearance.

Each candidate will receive a notice of the time and place of the examinations, and an appointment for his personal appearance before the board.

EXAMINATIONS, WHERE HELD, AND REPORTS OF CASE HISTORIES

The board will hold one examination a year. This will be held at a time or place that the board may select or deem expedient.

1. The *written examinations* are designed to test the candidate's preparation in, and his knowledge of, the whole subject of urology, including the fundamental subjects: pathology, anatomy, physiology, embryology, bacteriology, physiological chemistry and endocrinology. The examination in pathology will consist of the identification of gross specimens and of sections of tissue observed through the microscope. The examination in anatomy, physiology, embryology, bacteriology, physiological chemistry, and endocrinology will be a test of the candidate's working knowledge of these subjects as they are related to the practice of urology.

2. The oral and clinical examinations will consist of discussions of common urologic conditions. The subjects forming the basis of the oral examinations are urography, diseases of the genital organs, including the prostate, diseases of the urinary bladder, and diseases of the ureters and kidneys. The oral examination may deal directly with the reports of case histories which the candidate has submitted. This examination will ascertain the candidate's familiarity with recent urologic literature, the breadth of his clinical experience, and his general qualifications as a specialist in urology. The applicant also will be examined in "professional adaptability" in an attempt to ascertain his attitude toward his fellow practitioners and his patients.

3. The *reports of fifty major urological cases* must be consecutive and must have been under the candidate's own supervision. They must not be abstracted. Sufficient data should appear in these so the examiner will know that a proper history was taken and that a thorough examination, including a complete physical survey, was made.

Case reports that are copied verbatim from a hospital record are not desired. They must be identified by the name of the hospital and the case admission numbers, with the pertinent dates. The reports must be typewritten (on 8½ by 11 inch paper) and in duplicate, but need not be on any special forms.

The data should be placed under proper headings and the arrangement of these should conform to the sequence of events incidental to the patient's admission to the hospital or clinic, the examinations made and treatment prescribed.

Each candidate must assume personal responsibility for the data in his case reports, including autopsy findings and interpretations of urograms. If the reports are prepared by record clerks, interns, or fellows, they should be reviewed by the candidate and careful attention given to the spelling and the correct use of medical terms before submitting them to the secretary of the board. Case reports are documentary evidence of a candidate's method of practice, and the data in them and the manner in which these are presented reflect this.

Satisfactory case reports must be submitted before a candidate will be permitted to continue with other parts of his examination. If case reports are pronounced unsatisfactory by more than one examiner, the candidate will be informed of this and requested to prepare others. Criticisms and unsatisfactory reports will be sent to the candidate upon request.

Case reports must be submitted to the secretary of the board at least ninety days before the time set for the oral-clinical examination.

Although the board requires that all the essential points of the history and examination be given, as well as a complete description of the surgical procedure, emphasis should be placed on the following items: preoperative diagnosis; clinical and pathological diagnosis; summary of postoperative course with special reference to morbidity; clinical findings at time of discharge from the hospital and subsequent "follow-up" reports.

A final short paragraph must be prepared for each case by the candidate. These data must include the candidate's interpretation of the history in terms of pathology; the basis for the diagnosis; the facts that determined the treatment prescribed, whether surgical or otherwise; the course of treatment to be pursued following discharge from the hospital or clinic; a critical discussion of the knowledge gained from the proper handling of the case, or from the errors made (if any) in the diagnosis and method of treatment.

Complete separate index lists of the case history reports submitted must accompany the records. If the reports are obtained from more than one hospital they must be consecutive, as mentioned before, and a separate complete index list of each group of reports should be provided. These lists must state the operator's name at the head of each page, the name of the patient, the hospital and admission number, and the date of operation. The lists will be filed in the secretary's office for verification purposes.

Case reports will be reviewed by examiners living in localities other than those where the candidates practice.

FINAL ACTION

Final action is based on the applicant's training, his professional record, his attainments in the field of urology, and the results of the examinations. Any well trained urologist will have no difficulty in obtaining the board's certification. This board is organized not to prevent qualified urologists from obtaining certificates, but to assist them in becoming recognized in their communities as men competent to practice in the special field of urology.

The activities described above proceed from the certificate of incorporation in which is stated the nature of the business, objects, and purposes proposed to be transacted and carried out by this corporation.

REVOCATION OF CERTIFICATE

Certificates issued by this board are subject to the provisions of the Articles of Incorporation and the By-laws. According to Article IX, Section 4, of the By-laws, "each certificate may be revoked in the event that:

(a) The issuance of such certificate or its receipt by the physician so certified shall have been contrary to, or in violation of, any provision of the Certificate of Incorporation of this, the American Board of Urology, Inc., or of the By-laws; or

(b) The physician or party certified shall not have been eligible to receive such certificate, irrespective of whether or not the facts constituting him so ineligible were known to, or could have been ascertained by, the directors of the board at the time of the issuance of such certificate; or

(c) The physician or party so certified shall have made any misstatement of fact in his application for such certificate or in any other statement or representation to the board or its representatives; or

(d) The physician so certified, at any time while continuing to practice, shall cease to practice urology; or

(e) The physician so certified shall at any time have neglected to maintain the degree of competency in the practice of the specialty of urology as set up by the board, and shall refuse to submit to reexamination by the board.

The Board of Trustees of this Corporation shall have the sole power, jurisdiction and right, to determine and decide whether or not the evidence or information before it is sufficient to constitute one of the grounds for revocation of any certificate issued by this corporation, and the decision of such Board of Trustees in the premises shall be final."

Communications should be addressed to the secretary-treasurer.

ADVISORY BOARD FOR MEDICAL SPECIALTIES

Organized 1933-1934 to coordinate graduate education and certification of medical specialists in the United States and Canada.

This board reports directly to its member groups, and functions in close cooperation with the Council on Medical Education and Hospitals of the American Medical Association and with the Advisory Council on Medical Education.

The work of this Board has been aided by grants from the Josiah Macy Jr. Foundation of New York, but the Board is now supported by its component groups.

OFFICERS AND EXECUTIVE COMMITTEE

WILLARD C. RAPPLEYE, President, New York.
C. GUY LANE, Secretary-Treasurer, 416 Marlboro Street, Boston.
R. C. BUERKI, Philadelphia.
WALTER B. LANCASTER, Hanover, N. H.

MEMBER ORGANIZATIONS AND REPRESENTATIVES

*(Corresponding Officer)

The Association of American Medical Colleges
DONALD C. BALFOUR, Rochester, Minn.
WILLARD C. RAPPLEYE, New York.

The American Hospital Association
R. C. BUERKI, Philadelphia.
RUSSELL H. OPPENHEIMER, Atlanta, Ga.

The Federation of State Medical Boards of the U. S. A.
G. M. WILLIAMSON, Grand Forks, N. D.
*WALTER L. BIERRING, Des Moines, Iowa.

The National Board of Medical Examiners
*J. STEWART RODMAN, Philadelphia.
WALLER S. LEATHERS, Nashville, Tenn.

The American Board of Ophthalmology
CONRAD BERENS, New York.
WALTER B. LANCASTER, Hanover, N. H.

The American Board of Otolaryngology
HARRIS P. MOSHER, Marblehead, Mass.

The American Board of Obstetrics and Gynecology
JOSEPH L. BAER, Chicago.
*PAUL TITUS, Pittsburgh.

The American Board of Dermatology and Syphilology
HOWARD FOX, New York.
*C. GUY LANE, Boston.

The American Board of Pediatrics
HORTON R. CASPARIS, Nashville, Tenn.
*C. ANDERSON ALDRICH, Chicago.

The American Board of Psychiatry and Neurology
FRANKLIN G. EBAUGH, Denver.
*WALTER FREEMAN, Washington, D. C.

The American Board of Radiology
GEORGE W. HOLMES, Boston.
*BYRL R. KIRKLIN, Rochester, Minn.

The American Board of Orthopaedic Surgery
FREMONT A. CHANDLER, Chicago.
*GUY A. CALDWELL, New Orleans.

The American Board of Urology
HERMAN L. KRETSCHMER, Chicago.
*GILBERT J. THOMAS, Minneapolis.

The American Board of Internal Medicine
ERNEST E. IRONS, Chicago.
WILLIAM S. MIDDLETON, Madison, Wis.

The American Board of Pathology
ARTHUR H. SANFORD, Rochester, Minn.
*FRANK W. HARTMAN, Detroit.

The American Board of Surgery
VERNON C. DAVID, Chicago.
*J. STEWART RODMAN, Philadelphia.

The American Board of Anesthesiology
RALPH M. WATERS, Madison, Wis.
*PAUL M. WOOD, New York.

The American Board of Plastic Surgery
JOHN STAIGE DAVIS, Baltimore.
*James B. Brown, St. Louis, Mo.

The American Board of Neurological Surgery
HOWARD NAFFZIGER, San Francisco.
*R. GLEN SPURLING, Louisville, Ky.

FOREWORD

The Advisory Board for Medical Specialties has prepared these data for the purpose of furnishing general information regarding its activities in connection with graduate medical education and the certification of medical specialists in the United States and Canada. It is designed also to give detailed information concerning the procedure to be followed by examining boards in the various specialties in order to obtain membership in this Advisory Board and official recognition by the Council on Medical Education and Hospitals of the American Medical Association. This information is based in large part on the experience of previously formed boards during the past twenty-five years.

ORGANIZATION

This Advisory Board was organized in 1933-1934 to coordinate graduate education and certification of medical specialties in the United States and Canada.

Several specialty boards had been functioning actively and successfully for a number of years prior to the organization of the Advisory Board for Medical Specialties. Their purposes were, primarily, to establish minimum standards of graduate educational and training requirements for physicians representing themselves to the public as being specialists, with certification by the boards of candidates after they had been able successfully to pass the boards' examinations. Secondarily, these boards hoped to improve the general standards of graduate medical education and facilities for special training. This aim is being steadily and rapidly accomplished.

Credit for the improvement in undergraduate medical education, so noticeable in this country during the past twenty-five years, is due to the efforts of universities, educational foundations, medical schools, medical societies, and to public support along these lines. The same is true of the present transition in graduate education in the specialties, sharply stimulated by the establishment and activities of these certifying boards.

The American Board of Ophthalmology was the first special certifying board to be created in 1916; the American Board of Otolaryngology, established in 1924, was followed by the American Board of Obstetrics and Gynecology in 1930, and the American Board of Dermatology and Syphilology in 1932.

During part of this period of time plans for the organization of similar boards in other specialties were being actively projected, all of these groups being desirous of availing themselves of the experiences of the already existing boards.

It was soon recognized that some formal and official plan of organization must be established. It was clearly essential that an examining board must have the official sanction of the national societies in its given specialty as well as that of its section of the American Medical Association, but there was, at that time, nothing to prevent unofficial groups from organizing examining boards and using the title American Board.

Consequently, in order to avoid duplication of effort as well as to coordinate the work of the several boards and other interested groups into a concise and homogeneous plan for betterment, it was deemed advisable to create an Advisory Board which should give consideration to those problems common to all, and which should be representative of each organization concerned.

During the years 1933 and 1934 this Advisory Board was organized and began actively to function. Simultaneously at the Milwaukee session of the American Medical Association in 1933 a resolution was adopted authorizing the Council on Medical Education and Hospitals: (1) to formulate standards of administration based in general upon those of the American Boards of Ophthalmology, of Otolaryngology, of Obstetrics and Gynecology, and of Dermatology and Syphilology and, (2) to recognize officially new boards meeting these standards, this recognition to be based upon previous approval and recommendation to the Council by the Advisory Board.

A constitution and by-laws for the Advisory Board was adopted at a meeting in Chicago on February 11, 1934. The original member organizations of the Advisory Board for Medical Specialties were: the Association of American Medical Colleges; the American Hospital Association; the Federation of State Medical Boards of the U. S. A.; the National Board of Medical Examiners; the American Board of Ophthalmology, founded 1916; the American Board of Otolaryngology, founded 1924; the American Board of Obstetrics and Gynecology, founded 1930; and the American Board of Dermatology and Syphilology, founded 1932. Two representatives were appointed from each of these organizations to serve on the Advisory Board. Since that time the American Board of Pediatrics (1934), of Psychiatry and Neurology (1934), of Radiology (1933), of Orthopaedic Surgery (1934), of Urology (1934), of Pathology (1936), of Internal Medicine (1936), of Surgery (1937), of Anesthesiology (1938), of Plastic Surgery (1938), and of Neurological Surgery (1940) have been properly organized, approved, and elected to membership in the Advisory Board and recommended to the Council on Medical Education and Hospitals of

the American Medical Association for official recognition. There are, therefore, fifteen examining boards now organized, approved and actively functioning in the fifteen specialties recognized as suitable fields for the certification of specialists.

The work of this board has been aided by grants from the Josiah Macy, Jr., Foundation of New York, but the board is now supported by its component groups.

PURPOSE

Article II of the Constitution states that, "This board shall act in an advisory capacity to such organizations as may seek its advice concerning the coordination of the education and certification of medical specialists." Specifically, this represents an official effort to advance the standards and improve the methods of graduate education and training in the medical specialties, with certification of men thus educated and trained who qualify as specialists in the various branches. The common interest of the member organizations in these purposes is obvious. It is equally apparent that some fixed definition of specialties needed to be established, preferably on a graduate educational basis, that minimum standards of organization and conduct for new examining boards should be fixed, and that some official method of recognition be developed.

There is no desire on the part of these boards to interfere with any practitioners of medicine in any of their regular or legitimate activities. Their fundamental purpose is to ensure to the public, both lay and medical, and for its protection, that physicians claiming to be specialists with presumably special proficiency in one or another branch of medicine actually possess the qualifications they claim. This presupposes special training and demonstrable capability along certain lines of work. Suitable evidence of this is the ability of an individual to satisfy an examining board about his training and then to pass the examination for certification.

Surveys of existing facilities for graduate training in the various specialties are being conducted at the present time; residencies as well as preceptorship and assistantship training are being studied; preparations for stimulating medical school and hospital facilities for the required graduate training are going forward actively; round table conferences furnish discussions of subjects of interest in regard to graduate medical education.

The Council on Medical Education and Hospitals of the American Medical Association has agreed, under the authority vested in it by the resolution passed at the Milwaukee meeting (1933) and referred to above, that applications of special examining boards for official approval are to be referred to the Council through the Advisory Board for Medical Specialties, recommendation by the Advisory Board for such approval to be based upon the standards mutually adopted. The understanding exists that the Council cannot be bound by recommendations of the Advisory Board but will consult the Advisory Board for Medical Specialties before acting upon any application so long as mutually adopted standards are in force.

Early in 1940 there was published the first edition of the Directory of Medical Specialists containing the names and biographic data of all men certified by the several specialty boards, as well as information regarding the organization and functions of these boards. In the last edition published early in 1942 appears the names and brief biographic records, including hospital and teaching appointments, of about 18,000 diplomates or certified specialists.

In response to the generally recognized need for a clear formulation of the educational problems and principles involved in graduate and postgraduate medical training, the Advisory Board at its meeting in June 1937 voted to create a Commission on Graduate Medical Education to study the various aspects of the whole problem. This commission included representatives of the profession, the specialties, the universities, the hospitals, and the licensing bodies. The report of this commission comprising 304 pages appeared in 1940, published by the University of Chicago Press, and is of real assistance to the various specialty boards, hospitals, medical schools, and regulatory bodies dealing with this phase of American medicine.

MEMBERSHIP

The Advisory Board is composed of two representatives from each of the approved examining boards in the medical specialties and such other national organizations as are interested in education, examination, and certification of medical specialists and duly elected to this body.

The Constitution provides that, "To be eligible for representation in this board an examining board in a specialty must be composed of members elected from or appointed by societies recognized by this board as a national society in that specialty together with representation from the related section of the American Medical Association." Upon being accepted by the Advisory Board the board in question is recommended to the Council on Medical Education and Hospitals of the American Medical Association as qualified for recognition. Membership in the Advisory Board provides for the inclusion of the name of the organization in all lists and directories published by the Advisory Board for Medical Specialties and provides also for publication of the names of specialists certified by each individual examining board.

This board reports directly to its member groups, and functions in close cooperation with the Council on Medical Education and Hospitals of the American Medical Association, and with the Advisory Council on Medical Education.

The Advisory Board has voted that no more subsidiary boards be formed and that further special groups be provided for, so far as possible, within the boards of medicine and surgery.

Meetings of the Advisory Board for Medical Specialties are held annually as required.

Traveling and other expenses of representatives in attendance are borne by member organizations.

ESSENTIALS FOR APPROVED SPECIAL EXAMINING BOARDS

I. ORGANIZATION

1. A special examining board to be approved by the Advisory Board for Medical Specialties should represent a recognized and distinct specialty of medicine. (It is agreed between the Council and the Advisory Board that no board shall be organized in a special field having less than one hundred members engaged in special practice in the United States.)

2. It should be composed of representatives of the national organizations in that specialty including the related section of the American Medical Association.

3. It should be incorporated.

4. A special board should:

(a) Determine whether candidates have received adequate preparation.

(b) Provide a comprehensive test of the ability and fitness of such candidates.

(c) Certify to the competence of those physicians who have satisfied its requirements.

II. DEFINITION OF SPECIAL FIELDS

The following branches of medicine at present are recognized as suitable fields for the certification of specialists:

1. Internal Medicine
2. Surgery
3. Pediatrics
4. Obstetrics and Gynecology
5. Ophthalmology
6. Otolaryngology
7. Dermatology and Syphilology
8. Psychiatry and Neurology
9. Urology
10. Orthopaedic Surgery
11. Radiology
12. Pathology
13. Neurological Surgery
14. Anesthesiology
15. Plastic Surgery

III. QUALIFICATION OF CANDIDATES

Each applicant for admission to the examination should be required to present evidence that he has met the following standards:

A. General Qualifications.

1. Satisfactory moral and ethical standing in the profession.

2. Membership in the American Medical Association or membership in such Canadian or other medical societies as are recognized for this purpose by the Council on Medical Education and Hospitals of the American Medical Association is recommended. Membership in other societies should not be required. (Exceptions to the foregoing may now be made at the discretion of any individual board for good and sufficient reasons.)

B. Professional Standing.

1. Graduation from a medical school recognized by the Council on Medical Education and Hospitals of the American Medical Association.

2. Completion of an internship, preferably of the general rotating type, of not less than one year in a hospital approved by the same Council.

C. Special Training.

(To be effective as far as practical not later than Jan. 1, 1944.)

1. A period of study, after the internship, of not less than three years in clinics, dispensaries, hospitals or laboratories recognized by the same Council as competent to provide a satisfactory training in the special field of study.

2. This period of specialized preparation should include:

(a) Graduate training in anatomy, physiology, pathology, and the other basic medical sciences which are necessary to the proper understanding of the specialty in question.

(b) An active experience of not less than eighteen months in hospital clinics, dispensaries and diagnostic laboratories recognized by the Council as competent in the specialty.

(c) Examinations in the basic medical sciences of a specialty as well as in the clinical, laboratory and public health aspects.

3. An additional period of not less than two years of study and/or practice.

These essentials were adopted by the Advisory Board for Medical Specialties June 10, 1934 and have had only minor changes since then. They are practically identical with an outline of Essentials for Approved Specialty Boards adopted June 10, 1934 by the Council on Medical Education and Hospitals of the American Medical Association and ratified June 11, 1934 by the House of Delegates of the American Medical Association.

ORGANIZATION OF EXAMINING BOARDS

The foregoing essentials for approved special examining boards were followed in the organization of the existing boards.

Official sponsorship of the national societies, and the related section of the American Medical Association, in a specialty organizing an examining board, has included the election or appointment of representatives from each of these national societies to serve on the board as examiners and directors.

Each board was or is incorporated. Each application for organization and approval included:

1. The name of the proposed board.

2. A statement of its method of organization, the sponsoring societies, its list of officers, and the names and addresses of the elected or appointed members of the board, including the societies which each represents.

3. A copy of the tentative constitution and by-laws.

4. A copy of its proposed articles of incorporation.

5. An outline of qualification requirements for applicants.

6. An outline of proposed methods of examination.

7. A copy of the application blank.

8. Any general information or statement of importance.

9. Approximate number of physicians practicing the specialty which the board represents.

These data are submitted in duplicate to the office of the Secretary of the Advisory Board for Medical Specialties. An application for election to membership in the Advisory Board and the data listed above are referred immediately for review by the Committee on Standards and Examinations of the Advisory Board. Upon approval by the committee incorporation is then completed and a statement of this filed with the secretary. Action on the application will be taken at the succeeding meeting of the Advisory Board for Medical Specialties and each examining board as elected will be recommended to the Council on Medical Education and Hospitals of the American Medical Association for official recognition. One of the two sets of data submitted is forwarded to the Council on Medical Education and Hospitals of the American Medical Association with the Advisory Board's recommendations. Examination and certification of applicants in the specialty may begin immediately when the special board is given such approval.

Communications should be addressed to the secretary.

CONSTITUTION AND BY-LAWS

Adopted at Organization Meeting, February 11, 1934

ARTICLE I

NAME

The name of this organization shall be "The Advisory Board for Medical Specialties."

ARTICLE II

PURPOSE

This board shall act in an advisory capacity to such organizations as may seek its advice concerning the coordination of the education and certification of medical specialists. No action taken by this Board shall be binding upon any member organizations.

ARTICLE III

MEMBERSHIP

Section I

This board shall be composed of two representatives from each of the examining boards of the medical specialties and such other national organizations as are interested in education, examination, or certification of medical specialists.

Section II—Original Membership

At the time of the organization, this board shall be composed of representatives from each of the following bodies:

The American Board of Ophthalmology.
The American Board of Otolaryngology
The American Board of Obstetrics and Gynecology
The American Board of Dermatology and Syphilology
The Association of American Medical Colleges
The National Board of Medical Examiners
The Federation of State Medical Boards of the U. S. A.
The American Hospital Association
The Council on Medical Education and Hospitals of the American Medical Association

Section III—Additional Membership

To be eligible for representation in this board an examining board in a specialty must be composed of members elected from or appointed by societies recognized by this board as national societies in that specialty together with representation from the related Section of the American Medical Association. Upon being accepted by this Advisory Board the board in question will be recommended to the American Medical Association as being qualified for recognition by that Association.

Section IV—Quorum

A quorum at any meeting shall consist of a majority of the official representatives to the board and at least one-third of the membership organizations shall be represented. Each member organization shall be entitled to two votes.

ARTICLE IV

OFFICERS AND STANDING COMMITTEES

Section I—Officers

The officers of this board shall be (a) President, (b) Vice President, (c) Secretary-Treasurer. These officers shall be elected at the annual meeting each year.

Section II—Standing Committees

The standing committees shall be as follows:

1. The Executive Committee
2. Standards and Examinations
3. Finance

The Executive Committee shall consist of the President, Vice President, Secretary-Treasurer, and two members elected at the annual meetings. No organization should have more than one member on the Executive Committee. The President shall be the Chairman of the Executive Committee. The other standing committees shall be appointed by the President.

ARTICLE V

AMENDMENTS TO THE CONSTITUTION

Amendments to this constitution may be made by a majority vote of the official representatives present at any annual meeting provided that thirty days' notice of the proposed amendment has been given each member of the board.

BY-LAWS

ARTICLE I

DUTIES OF OFFICERS

Section I

The President shall preside at all meetings of the board, shall act as Chairman of the Executive Committee, and shall appoint all other standing committees. He shall call meetings of the Executive Committee at such time and place as may be deemed necessary.

Section II

The Vice President shall assume the duties of the President in his absence.

Section III

The Secretary-Treasurer shall perform the usual duties of this office.

ARTICLE II

EXECUTIVE COMMITTEE

The Executive Committee shall carry out the policies and activities decided upon by the board. It shall have ad interim authority to initiate policies subject to approval by the board at the annual or any special meeting. The two elected members shall serve for two years, the terms of office terminating in alternate years.

ARTICLE III

MEETINGS

Section I

There shall be an annual meeting at such time and place as the board may determine. A special meeting may be called by the president upon ten days' notice to all members stating time, place and purpose of such meeting. The Executive Committee may present other business for consideration.

Section II

The Executive Committee shall meet subject to the call of the President.

Section III

Robert's Rules of Order shall be followed except where they conflict with this Constitution and By-Laws.

ARTICLE IV

AMENDMENTS TO THE BY-LAWS

Amendments to these by-laws may be made at any regular or special meeting of the board.

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SATURDAY, AUGUST 15, 1942

CONTRIBUTION OF MEDICAL SCHOOLS TO THE WAR EFFORT

An educational institution is never better than its faculty. Regardless of physical and clinical facilities, a medical school cannot offer opportunities for a high standard of medical education without a competent faculty to assume leadership, offer stimulus and maintain supervision over the work of its students.

As a war measure the medical schools of this country have increased the size of their entering classes by approximately 10 per cent. They have adopted an accelerated program which calls for the graduation of a class every nine months. They have been asked to make available for military service all members of their faculties except those who are absolutely essential for the conduct of their programs. The request is reasonable and is a contribution which the medical schools can and should make to the conduct of the war.

The medical schools have been asked not to lower the standards of medical education in connection with the adoption of the accelerated program or the increase in size of the student body. Competent teachers are rare, and relatively few members of a medical school faculty, valuable as they may be in assisting in the conduct of the school's program, are competent to assume major teaching responsibilities. All too prevalent is the idea that a teacher does not need special qualifications and that in a medical school any one with an M.D. degree may serve as a competent teacher. Hence many apparently believe that any member of a medical school faculty who happens to be disqualified for military service either because of age or because of physical condition is competent to replace any other man in his department who is deemed essential by the school but who otherwise meets the qualifications for military duty. It is competent teachers that are essential, rather than simply manpower, if the medical schools are to meet satisfactorily the responsibilities they have assumed in connection with graduation of over twenty-one thousand qualified physicians during the next three years.

Medical teachers who are essential to the conduct of the medical school must appreciate their responsibility to continue in their teaching positions. Furthermore, they should realize that by so doing they are making a great contribution to the war effort in the education of this unprecedented number of physicians, which is necessary to the continued conduct of the war. In many instances they will be called on to carry a much heavier routine and to make greater sacrifices as teachers than they would as commissioned officers in the military services. Enthusiasm for service, local attitudes and social pressure have already resulted in serious depletion of the medical school faculties in a few instances.

Mutual cooperation between the Office of Procurement and Assignment of Physicians, Dentists and Veterinarians and the medical schools should provide a reasonable allocation of responsibilities for the faculties of the medical schools. Only through such cooperation can the medical schools meet both their immediate and their continuing responsibilities in providing their share of physicians for the entire war effort.

THE HEALTH OF MEDICAL STUDENTS

The importance of health in wartime has justly been stressed not alone by public health officials but by all governmental agencies. Extensive programs have been developed to protect the health of those in the armed forces and in war industries. The physicians of our country have a tendency to neglect their own health; as a national duty they must now do everything possible to protect it so that the medical profession may serve during this period with the highest efficiency.

Medical educators have for years been concerned because of the frequent "physical breakdowns" among the medical students of this country. With the adoption of the accelerated program of medical education, students will be called on to accomplish in three years what previously has caused many breaks in health when spread over a period of four years. Thus it is especially appropriate at this time to emphasize that medical schools should do everything possible to protect the health of their students, not alone in the best interest of students themselves, but as a part of the responsibility which the medical schools are assuming in preparing these young men to serve efficiently as physicians either with the armed or with the civilian forces.

Student health services in this country have been successful in discovering physical defects. The criticism is frequent that they do little to remedy such defects.

Reports from army physicians suggest that a similar criticism may be applied to medical school health services. One army medical officer recently reported that 41 per cent of two hundred and forty-five third and fourth year students from five different medical schools were disqualified for army service because of remediable defects. Medical students have been permitted by the federal authorities to continue their education in order that they may enter the military services as

qualified physicians. The medical schools have for the same reason sought the deferment of these students and have assumed the responsibility of preparing them for such service. The medical school and the medical student should cooperate to secure correction of remediable defects. Then as far as possible the graduates of our medical schools will be both physically and mentally qualified to meet their responsibilities.

ARTIFICIAL ANTIBODIES

In vitro synthesis of type specific antipneumococcus precipitins and agglutinins has been reported recently by Pauling and Campbell[1] of the Department of Chemistry, California Institute of Technology. Substances simulating specific antibodies formed outside the animal body were demonstrated thirty years ago by Russian immunologists. Ostromyschlenski and Petroff,[2] for example, incubated a mixture of diphtheria toxin and normal horse serum and obtained an end product with all the therapeutic properties of diphtheria antitoxin. By incubating diphtheria toxin with different protein fractions of normal horse serum, Kryshanowski[3] prepared two artificial diphtheria antitoxins of different therapeutic value. By somewhat different technics, Sdrawosmisslow[4] and Kimmelstiel[5] incubated diphtheria toxin with commercial trypsin and reported the successful test tube synthesis of a "toxin trypsinate" with the therapeutic properties of an antidiphtheritic serum. In anticipation of future commercial value, artificial antitoxin made by incubating diphtheria toxin with normal serum plus pancreatin was promptly patented in Germany.[6]

By substituting bacteria for diphtheria toxin, other Soviet investigators[7] successfully synthesized specific agglutinins, bacteriolysins and complement deviating antibodies. This technic was promptly appropriated by German botanists,[8] mainly to avoid the trouble and expense of experimental animals. They incubated plant juices with normal serums and reported the production of artificial precipitins, interchangeable with natural immune precipitins, in their study of biochemical plant relationships. While most of these artificial precipitins were of low titer, Sasse[9] obtained an occasional product with which plant juices could be identified in dilutions as high as 1:6,400. Many unexpected overlapping specificities, however, were reported by other investigators,[10] suggesting plant relationships differing from those suggested by natural immune serums.

The first artificial precipitin for an animal protein was prepared by Kabelik[11] of Czechoslovakia. He, however, believed that his synthetic product was not a true antibody but only a biochemical precursor of such an antibody. This conclusion was confirmed by Manwaring,[12] who found that artificial precipitins formed by incubating one part of horse protein with twenty parts of normal rabbit serum usually show zone reactions and other qualitative differences from natural immune precipitins. He concluded that "hybridization" of horse proteins in artificial serum mixtures represents but the initial stage in the natural production of specific antibodies, necessitating the assumption of secondary and tertiary stages in the natural synthesis. It also seemed necessary to assume a continuous, quasiproliferative process in order to account for the relatively high titer in experimental animals. This proliferative process was conceivably similar to the quasiproliferation of bacteriophage in symbiosis with bacterial cells.

Subsequent advances in immunochemistry, particularly determination of the chemical nature of haptens and protein molecules, have made possible today the formulation of a more definite theory. Pauling,[13] for example, called attention to the fact that globulin molecules are "unfolded" or "uncoiled" under the influence of certain physical or chemical agents much in the way a fern leaf uncoils on approaching maturity. On removal of these conditions the unfolded molecule is again "coiled" to its original surface specificity. Pauling assumes that in the presence of a foreign antigen the refolding is atypical, the globulin molecule coiling around and assuming a surface configuration "complementing the surface regions of the antigen." Dissociated from the adherent antigen, the refolded globulin now functions as a specific antibody or specific receptor for the antigen. Artificial antibodies therefore differ from normal serum globulins only in the way in which the polypeptide chain is refolded or recoiled. This concept is in accord with data currently reported by Wright,[14] who concluded that "horse antibody protein is essentially the same as horse gamma globulin."

In order to test this theory, Pauling and Campbell[1] attempted to prepare antibodies against antigens of known chemical composition. They selected certain antigenic dyes, for example, and type III pneumococcus carbohydrate, bovine gamma globulin being the normal serum protein used in most of their tests. Successful unfolding and refolding of gamma globulin is readily effected by several methods, such as the addition of alkali and slow return to neutrality, the addition and slow removal of urea, or by heating to 65 C. and slowly cooling. Their most satisfactory yield, however, was obtained by incubating the gamma globulin-antigen

1. Pauling, Linus, and Campbell, Dan H.: Science **95**: 440 (April 24) 1942
2. Ostrosmychlenski and Petroff: Russ. Gesellsch. f. physical. Chem. **47**: 263, 1915.
3. Kryshanowski, W. N.: Centralbl. f. Bakt. **110**: 1, 1929.
4. Sdrawosmisslow, W. H., and Kastromin, N. E.: Ztschr. f. Immunitätsforsch. **54**: 1, 1927.
5. Kimmelstiel, D.: Ztschr. f. Immunitätsforsch. **62**: 245, 1929.
6. Patent No. 293055, class 30 h, group 6.
7. Sdravomysloff, W. M., and Kistromine, N.: Bull. Inst. Pasteur **21**: 941, 1923. Bashkirzev, N. I.: Ztschr. f. Urol. **23**: 92, 1929.
8. Mez, C., and Ziegenspeck, H.: Botanisches Arch. **12**: 163, 1925.
9. Sasse, F.: Beitr. z. biol. Pflanzen **16**: 351, 1928.
10. Nahmacher, E.: Beitr. z. biol. Pflanzen **17**: 1, 1929.
11. Kabelik, J.: Biologicke liste (Prague), 1927, p. 31.
12. Manwaring, W. H.: J. Immunol. **19**: 155 (Aug.) 1930.
13. Pauling, L.: J. Am. Chem. Soc. **62**: 2643, 1940.
14. Wright, G. G., Jr.: J. Infect. Dis. **70**: 103 (March-April) 1942.

mixture for several days at 57 C., a process similar to that originally adopted by the Soviet immunochemists.

In a typical experiment, 1 per cent type III pneumococcus polysaccharide was added to a 1 per cent solution of bovine gamma globulin and the resulting mixture held at 57 C. for fourteen days. The mixture was then freed from pneumopolysaccharide by a precipitation or salting out method. The resulting free modified gamma globulin ("purified antibody") was found to precipitate type III pneumopolysaccharide in vitro but gave negative reactions with type I or type VIII polysaccharide. The modified gamma globulin would also agglutinate type III pneumococci in vitro but not types I or II. Mouse protection tests and swelling tests have not yet been carried out.

The earlier Russian attempts to synthesize specific antibodies were mainly undertaken for their theoretical interest, since substitution of relatively low titer artificial antibodies for high titer natural immune serums was of little clinical promise. With the wide use of human plasma banks at the present time, however, practical interest is aroused. If a conversion of normal human plasma globulins into immune globulins is feasible, artificial immune human plasma banks may become a subject of future clinical research. In this eventuality the California biochemists will have rendered a distinct service to clinical medicine by suggesting a definite chemical theory to replace the tentative metaphors of the earlier immunologic theorists.

Current Comment

GRADUATE MEDICAL EDUCATION IN WARTIME

The graduate programs of thousands of physicians in the United States are necessarily being interrupted by their call to active duty with the armed forces. However, the time spent in the service of their country cannot be considered as time lost in their preparation for future careers in any of the specialties of medicine. Military service will in many instances provide a type of training and experience which, many physicians believe, will be extremely helpful in a satisfactory preparation for the practice of the medical specialties. Furthermore, as is indicated elsewhere in this issue of THE JOURNAL, the various specialty boards have adopted certain policies in regard to granting credit for military service which will compensate at least in part for the interruption of planned programs to meet their requirements for certification. The policies adopted by the specialty boards vary from the granting of an indefinite amount of credit to be determined by an evaluation of the experience of individual applicants to full credit allowed by the American Board of Surgery for work done in the surgical division of a regularly constituted army or naval hospital. The specialty boards are not lowering their standards by the adoption of these policies but are indicating their willingness to give such credit as is justified for experience and training gained with the armed services as well as that secured in civilian hospitals or under other accredited sponsorship. The announcement of these policies, together with the avowed intention of the Council on Medical Education and Hospitals to attempt to formulate plans to provide opportunities for the continued training of recent graduates after the war, should offer considerable encouragement to those in active service who are looking forward to careers in the medical specialties.

TUBERCULOSIS IN INDUSTRY

Pulmonary tuberculosis is frequently ascribed to conditions of employment, often on tenuous and insecure scientific grounds. This is particularly true when employment necessitates exposure to dust, although in most instances the nature of the dust may be unknown and neither x-ray study nor physical examination made in advance of employment as a basis for comparison. Pneumonoconiosis to many physicians means exposure to dust (any dust) with resultant specific susceptibility to infection of the respiratory tract and activation of healed or arrested pulmonary tuberculosis. Pneumonoconiosis and silicosis are still synonymous in too many professional minds. Exposure to gases such as sulfur dioxide has on occasion given rise to similar faulty beliefs as to cause and effect relationships. Often investigation demonstrates contact with open unrecognized tuberculosis at home. Admittedly there are many discrepancies in our knowledge of fatigue, nutrition and recreation as factors in predisposition to the development of active pulmonary tuberculosis. Until more precise knowledge is available, however, etiologic speculation is unwarranted in all statements by physicians about this important adult health problem. Social-economic considerations lend emphasis to the need for cautious statement about the relationship between employment and tuberculosis. Conflicting and unwarranted statements offered as medical testimony before courts of law and administrators of workmen's compensation lead to much confusion and injustice. Decisions on these claims must be based on medical facts established as evidence from testimony, a difficult situation when some individual theory rather than prevailing well founded medical opinion is in the record. The remedy, obviously, is to establish all available facts relating to occupational conditions as predisposing or activating factors in pulmonary tuberculosis. The symposium on tuberculosis in industry held at Saranac Lake, N. Y., during the past year is a step in the proper direction but demands periodic repetition.[1] There has been some fear that chest examinations among workers will lead to the development of groups of unemployable individuals. If fear is allowed to deter proper clinical inquiry, it will be impossible to expect the degree of success in industrial health that has been achieved in child health. During the past twenty-five years the child health campaign has led pediatric practice largely into the field of preventive medicine.

1. Gardner, Leroy U.: Tuberculosis in Industry, J. A. M. A. **118**: 643 (Feb. 21) 1942.

MEDICINE AND THE WAR

In this section of The Journal each week will appear official notices by the Committee on Medical Preparedness of the American Medical Association, announcements by the Surgeon Generals of the Army, Navy and Public Health Service, and other governmental agencies dealing with medicine and the war, and such other information and announcements as will be useful to the medical profession.

RELATION OF EMERGENCY MEDICAL SERVICES TO INDUSTRIAL PLANTS

The Office of Civilian Defense, Washington, D. C., in Medical Division memorandum number 14, points out that the primary responsibility for the protection of industrial plants rests on the operators, owners and local and state governments. The War and Navy departments have included in their program the responsibility for recommending protection in certain civilian plants engaged in the production of war material. The War and Navy departments have requested all civilian manufacturing plants having important war contracts to cooperate with the local Emergency Medical Service of the U. S. Office of Civilian Defense.

All industrial plants are expected to provide medical services and first aid equipment within the plant for the care of the injured. The Office of Civilian Defense recommends that each industrial plant, in addition to providing its own medical staff and first aid equipment, should plan in collaboration with the chief of Emergency Medical Services of the locality for (1) services of ambulances and emergency medical field units when needed, (2) available beds at one or more hospitals to which the severe casualties may be transported, (3) the establishment of a casualty station of the Emergency Medical Service within a short distance of the plant and (4) obtaining the services of emergency medical field units if needed to supplement the plant medical service during an emergency.

If a plant is miles from a hospital and there is a possibility that the injured might be obliged to remain at the casualty station for hours before transfer to the hospital, the casualty station should be larger than the average for a given number of employees and be adequately equipped. It must have cots, blankets, water and heating facilities and be equipped at least with the emergency medical supplies outlined in Medical Division bulletin number 2, equipment lists 1 and 2.

To implement these instructions, section V of Medical Division bulletin number 4 is amended to include the following additional duties of the local chief of Emergency Medical Service:

During the period of preparation:

6. Protection of Industrial Plants.

(*a*) Advising all employers concerning adequate emergency medical protection to be afforded within industrial, commercial and service installations, including location of casualty stations and medical supplies where needed.

(*b*) Arranging for direct telephone lines between important installations and control center to facilitate evacuation of casualties and to provide emergency medical service with the minimum of delay.

ILLINOIS CIVILIAN BLOOD BANK

At the suggestion of Governor Green the state of Illinois has established a civilian blood bank, and a mobile blood collecting clinic has already collected the quota of donations for Champaign, Kane and Rock Island counties and the city of Peoria and at the time of this report was collecting blood from about sixty volunteers a day in Carbondale. The state health officer, Dr. Roland R. Cross, said that in every community visited by the mobile blood collecting unit the civic organizations, industries, defense councils and hospitals have cooperated. It was expected that the immediate quota of four thousand blood donations would be reached by July 25.

AWARDS FOR SERVICE IN BURMA

The Order of the Purple Heart has been awarded to seven officers of noncombat branches of the U. S. Army for service in Burma, Lieut. Gen. Joseph W. Stilwell's India headquarters announced on July 18, according to the New York *Times*. Those decorated were Major Gordon S. Seagrave, Medical Corps, of Granville, Ohio, who was formerly a medical missionary in Burma; Major Donald M. O'Hara of Janesville, Minn., a dentist who assisted Major Seagrave in performing operations on the porches of native dwellings in Burma; Col. Adrian St. John of Astoria, Queens, N. Y., of the Chemical Warfare Service, who snatched "jeeps" under Japanese fire in Rangoon and put them in the hands of Chinese forces; Lieut. Col. Frank D. Merrill of Cincinnati; Col. Robert P. Williams, Medical Corps, U. S. Army, who organized the medical service of the Fifth Chinese Army; Major Paul Jones of National City, Calif., who kept the Burma trains running when collapse threatened, and Capt. John H. Grindlay, Medical Corps, of Washington, D. C., who went to Burma from Chungking.

INSTRUCTION IN CHEMICAL WARFARE

A course of instruction in the medical aspects of chemical warfare was given at the Los Angeles County Medical Association Building, Los Angeles, July 17-18 and again on July 24-25. While the courses were primarily intended for casualty station personnel, they were available to other interested persons also. Dr. Kearney Sauer discussed the "History of Chemical Warfare," "Physical Properties of Gases," "Behavior of War Gases on Release," "Decontamination of Patients, Equipment and Materials," and "Hospital Investigation and Treatment of Gas Cases"; Dr. Grant H. Lanphere discussed "Lung Irritants: Chlorine, Phosgene, Chlorpicrin"; Drs. Samuel Ayres and Maximilian Obermayer discussed "Vesicants: Mustard, Lewiste, Ethydichlorarsine"; Drs. Clinton Wilson and A. R. Robbins, "Gas Injuries to the Eyes," and Raymond F. Goudey, technical assistant gas officer, "Plans for Construction of Decontamination Stations."

NEW YORK ORGANIZATION OF NURSES PERFECTED

The organization of New York City's trained nurses for duty in case of air raids is now perfected, with nearly six thousand nurses enrolled in field units, according to the New York *Times*. These private duty or public health nurses who have volunteered for community service are taking refresher courses weekly at hospitals as members of the Citizens Defense Nurse Corps under the Emergency Medical Service. One hundred nurses are assigned to each of fifty-four selected hospitals in the five boroughs. These mobile units of nurses will supplement emergency squads at the hospitals to which they are assigned.

NO FIXED FIRST AID POSTS IN BUFFALO

Dr. H. F. Brown, chief of the Emergency Medical Service in Buffalo, pointed out on June 20, according to the *Courier Express*, that casualty stations had been established in Buffalo and emergency medical field units organized. In case of emergency, teams will be sent out from these units; however, there will be no fixed first aid posts for air raid casualties in Buffalo. Field units and public and private school buildings will be used as first aid posts if necessary.

Medical News

(PHYSICIANS WILL CONFER A FAVOR BY SENDING FOR THIS DEPARTMENT ITEMS OF NEWS OF MORE OR LESS GENERAL INTEREST: SUCH AS RELATE TO SOCIETY ACTIVITIES, NEW HOSPITALS, EDUCATION AND PUBLIC HEALTH.)

CALIFORNIA

Paralysis Activities in San Francisco.—The San Francisco chapter of the National Foundation for Infantile Paralysis, Inc., recently financed the expenses of the assistant professor of medicine in charge of the physical therapy department at Stanford University School of Medicine, San Francisco, to attend a course on the Kenny treatment of poliomyelitis given at the University of Minnesota Medical School, Minneapolis. Funds were also authorized to defray the expenses of the director of physical therapy at the Hospital for Children, San Francisco, to Minneapolis to obtain training in the Kenny method of treatment for physicians, of a nurse for a week's training to be taught the technic of applications of hot fomentations and a physical therapy technician to take the two months course for such technicians. Similar expenses were authorized to defray the cost of training for limited periods for three persons holding comparable positions on the staff of the San Francisco Hospital Isolation Division.

CONNECTICUT

Venereal Disease Control Conference.—As a part of the national campaign to reduce venereal disease, the Federal Bureau of Investigation, state and local law enforcement agencies and members of the state department of health and the state medical society participated in a conference on the control of venereal disease and prostitution. The series opened in Torrington and Hartford on July 21, and meetings were held at Norwich and New London on the 22d, at Middletown and New Haven on the 23d and at Bridgeport and Stamford on the 24th.

Biochemist Wakeman Retires.—Alfred J. Wakeman, Ph.D., for thirty years a member of the department of biochemistry at the Connecticut Agricultural Experimental Station at New Haven, has retired. Born at Green's Farms, Dr. Wakeman received his Ph.B. at Yale University, New Haven, in 1887 and his Ph.D. at Leipzig in 1894. Prior to 1912, when he joined the experimental station staff, Dr. Wakeman had served at the Massachusetts Institute of Technology, Cambridge, the Sheffield Scientific School at Yale and the Herter Laboratories in New York. According to *Science*, Dr. Wakeman was associated at the station with Osborne and Mendel in their work on the nutritive properties of proteins and in the early studies of vitamin concentrates.

GEORGIA

Change in Health Personnel.—Dr. Clair A. Henderson, Savannah, has resigned as assistant city-county health officer of Savannah and Chatham County to become commissioner of health of Augusta and Richmond County, effective July 1. He will succeed Dr. Thomas B. Phinizy, Augusta, who recently resigned.

Activities of New Industrial Health Committee.—The committee on industrial health of the Medical Association of Georgia, which was organized in Atlanta in May, has begun a survey of essential defense industries and related industries throughout the state with a view to inaugurating campaigns on nutrition, safety and health. The committee aims further to have appointed in connection with local medical societies a committee on industrial health in districts and cities where there are essential war industries. A program is now under way to organize health and safety commissions composed of safety directors, managers of labor or plant managers, personnel directors, plant surgeons, health officers, nutrition experts in health work and representatives of labor unions. Through this project the committee on industrial health hopes to direct education along lines of proper diet in industrial cases as well as in homes of workers and coordinate efforts to increase production by staggering hours, rest periods and prolonging periods between shift changes. The entire program of the committee on industrial health seeks to tie in with the state association's plan to improve nutrition among citizens of the state and to fight vitamin deficiencies, which are widespread among the lower income groups in industry. Dr. John W. Simmons, Brunswick, is chairman of the committee, and Dr. Lester M. Petrie, Albany, in charge of the department of hygiene of the state department of health, is secretary.

ILLINOIS

Physician Honored.—The staff of the Veterans Administration Facility at Dwight presented a silver plaque to Dr. Rhodric W. Browne, who, after seven years as managing officer of the hospital there, is now on the retired list. Dr. Browne was also presented with a piece of airplane luggage from the entire personnel of the hospital. Dr. Browne with his wife left July 5 for New York, where they will make their future home.

Chicago

Dr. Apfelbach Made Medical Director of Presbyterian Hospital.—Dr. Carl W. Apfelbach, Rush professor of pathology, University of Illinois College of Medicine, has been appointed medical director of Presbyterian Hospital, where he has been a member of the staff since 1924. Following his graduation at Rush Medical College in 1922, Dr. Apfelbach served an internship and residency at the hospital.

Vinzenz Mueller Dies.—Mr. Vinzenz Mueller, manufacturer of surgical instruments, died in Oak Park, June 6, of a coronary attack at the age of 77. Mr. Mueller was born in Liptingen, Germany. For some years he was apprenticed to a manufacturer of instruments in Tuttlinger. Later he went to Berlin, Paris and London to serve as foreman in manufacturers' shops. He came to America in 1893 and served for a time in Chicago as foreman for the firm of Frank and Kratzmueller. In 1895 he with his wife established a small surgical instrument business in Chicago. Mr. Mueller was a founder and past president of the American Surgical Trade Association. In 1913 he started the publication of the association's journal, assuming the entire editorial and financial responsibility himself. Mr. Mueller had been chairman of the board of V. Mueller & Company for the past six years.

INDIANA

Dr. Rice Named Health Education Consultant.—Dr. Thurman B. Rice, chief of the bureau of health and physical education of the Indiana State Board of Health, Indianapolis, has been named health education consultant but will continue to serve as editor of the *Monthly Bulletin* of the department. Dr. Rice will be succeeded as director of the division by Frank S. Stafford, M.S., who has been teaching health and sports in several Indiana high schools. Dr. Rice was born in Landess in 1888. He was a teacher in several schools throughout the state and from 1921 to 1924 served on the faculty of the Indiana University School of Medicine, Indianapolis, where he has been professor of bacteriology and public health since 1926. In 1924 he became associated with the state department of health as director of the laboratory of hygiene and as assistant director of public health from 1933 to 1936, when he became chief. Dr. Rice has written numerous articles and textbooks on health for children and in 1933 wrote a set of sex education pamphlets published by the American Medical Association.

MAINE

State Medical Election.—Dr. Stephen A. Cobb, Sanford, was chosen president-elect of the Maine Medical Association at its annual meeting in Poland Spring in June and Dr. Carl H. Stevens, Belfast, was installed as president. Dr. Frederick R. Carter, Portland, was reelected secretary-treasurer.

MARYLAND

New Deputy State Health Officer.—Dr. Nels A. Nelson, Baltimore, director of the division of genitoinfectious diseases of the Massachusetts Department of Health since 1938, has been appointed deputy state health officer of Maryland. Dr. Nelson formerly served in the division of communicable diseases of the Massachusetts Department of Health. He is an associate in venereal diseases at the Johns Hopkins University School of Hygiene and Public Health and consultant to the U. S. Public Health Service.

Forty Years as Epidemiologist.—On June 1 colleagues of Dr. Caleb W. G. Rohrer, Baltimore, chief of the Pasteur Division of the state department of health, presented to him a silver vase to observe his completion of forty years' service with the department. Dr. Charles H. Halliday, Baltimore, a former student of Dr. Rohrer's and assistant director of the department, gave the presentation address. Dr. Rohrer graduated at the College of Physicians and Surgeons of Baltimore in 1900. He served on the faculty there from 1897 to 1917. In 1902 he became a member of the staff of the state department of health.

MASSACHUSETTS

Dr. Cutler Returns to Army.—Dr. Elliott Carr Cutler, Moseley professor of surgery, Harvard Medical School, and surgeon-in-chief at the Peter Bent Brigham Hospital, Boston, has returned to active duty with the U. S. Army after an interval of twenty-three years.

New England Conference on Tomorrow's Children.—The third New England Conference on Tomorrow's Children was held July 8-10 at the Geological Museum, Cambridge, under the auspices of the Harvard Summer School and twenty-seven cooperating organizations. The program was made up of evening lectures, morning sessions, round table discussions and symposiums. Among the speakers were:

Rabbi Sidney E. Goldstein, New York, Marriage, Children and the War.
Dr. Robert W. Laidlaw, New York, Medical Aspects of Marriage Failure.
Dr. Lester W. Sontag, Yellow Springs, Ohio, Some Aspects of Child Emotional Development.
Mrs. Louisa S. Neumann, Providence, R. I., Children of Minority Group Percentage.
Dr. Margaret W. Gerard, Chicago, War and the Mind of the Child.
Richard H. Anthony, Boston, Promiscuity and Vice in Wartime.
William W. Greulich, Cleveland, Adolescence in Wartime.
Dr. Frank G. Boudreau, New York, A War Policy for Adequate Nutrition.
Dr. Walter G. Phippen, Salem, Mass., Health Services in Wartime.

Changes in Faculty at Harvard.—Dr. George Van S. Smith, Brookline, assistant professor of gynecology, Harvard Medical School, Boston, has been promoted to W. H. Baker professor of gynecology, effective July 1. Other promotions at Harvard University include:

Dr. Francis R. Dieuaide, clinical professor of medicine.
Edward W. Dempsey, Ph.D., assistant professor of anatomy.
Dr. Robert N. Nye, assistant professor of bacteriology and immunology.
Dr. Austin M. Brues, assistant professor of medicine.
Dr. Robert E. Gross, assistant professor of surgery.
Frank W. Maurer, Ph.D., assistant professor of physiology.
Madeleine F. Warren, Ph.D., assistant professor of physiology.
Wilfred W. Westerfeld, Ph.D., associate in biologic chemistry.
Dr. John H. Dingle, associate in medicine.
Dr. Charles A. Janeway, associate in medicine.
Dr. Nathan B. Talbot, associate in pediatrics.
Leslie Silverman, associate in industrial hygiene.
Dr. Joe V. Meigs, clinical professor of gynecology.

MICHIGAN

Foundation for Postgraduate Medical Education Created.—With a gift of $10,000 the Michigan State Medical Society has established a foundation for postgraduate education to continue and expand its present activities in this field. Contributions from members of the profession, laymen and interested organizations are expected to increase the fund steadily until an anticipated total of $1,500,000 is reached. The plan eventually is to finance the postgraduate work on the income of the fund, while the program itself, in the form of refresher courses, will be available to members of the Michigan State Medical Society. Particular emphasis will be placed on extramural courses. An announcement pointed out that in the October and April extramural and intramural postgraduate work, which the society has been sponsoring for years, a total of 1,483 physicians in Michigan enrolled for "refresher" courses. This is approximately 32 per cent of the membership of the state medical society but nearly 40 per cent of the actual practitioners in the state. When the foundation is operating completely, it is hoped that all Michigan physicians will be enrolled in the program. The state medical society at its 1941 meeting approved a recommendation by Dr. Paul R. Urmston, Bay City, retiring president, that such a fund for graduate work be created. The trust agreement worked out in recent months was consummated on July 17, when the society's gift of $10,000 gave the fund legal status, according to the Detroit *News*. The official name will be the Michigan State Medical Society Foundation for Postgraduate Medical Education.

MISSOURI

Mr. Helsby Goes to Hospital Service.—Mr. Floyd K. Helsby has resigned as executive secretary of the Jackson County Medical Society to become executive director of Group Hospital Service, Inc., Kansas City. He has been succeeded as executive secretary of the county medical society by Mr. William H. Bartleson, who has been manager of the Medical Business Bureau, Inc. Mr. Helsby had been with the society since the spring of 1937.

NEBRASKA

Society News.—Dr. Abram E. Bennett discussed "Electroencephalographic Aids in Neurologic Diagnosis" before the Omaha-Douglas County Medical Society, Omaha, recently.

NEW YORK

Outbreak of Food Poisoning.—A recent outbreak of 165 cases of food poisoning, which occurred principally among nurses and other employees of a general hospital in a large city in upstate New York, has been traced to the ingestion of turkey salad. The outbreak was characterized by the onset of gastrointestinal symptoms; the majority of cases developed within three to six hours after the consumption of the turkey salad. In most instances recovery was rapid and there were no fatalities. The salad was mixed shortly before being served, but the meat used in its preparation had been left over from roast turkey served throughout the hospital forty-eight hours previously. The clinical and epidemiologic characteristics of the outbreak were consistent with those associated with staphylococcus enterotoxin food poisoning, and preliminary bacteriologic examination demonstrated the presence of hemolytic Staphylococcus aureus in large numbers both in the salad and in the turkey from which it was prepared. The mayonnaise used in the salad yielded no growth of bacteria. Further bacteriologic studies are still in progress. Although the actual mode of bacterial contamination of the turkey had not been established at the time of this report, there had been ample opportunity for the accidental introduction and multiplication of pathogenic organisms in the meat subsequent to the time of roasting.

New York City

Personal.—Dr. Louis Leiter, formerly associate professor of medicine at the University of Chicago School of Medicine, has been appointed chief of the medical division of Montefiore Hospital for Chronic Diseases, effective October 1. Dr. Leiter will succeed Dr. Leopold Lichtwitz, who has been promoted to the rank of consulting physician.——Daniel P. Higgins has been elected secretary of the New York Tuberculosis and Health Association, succeeding Myron I. Borg Jr., who resigned to enter the Navy. Mr. Higgins had been a member of the association.

Changes in Faculty at New York Medical College.—Dr. Milton J. Wilson has been named assistant to the dean at New York Medical College, Flower and Fifth Avenue Hospitals. Laura Florence, Ph.D., has been appointed professor and director of the department of bacteriology, and Dr. Lindsley F. Cocheu professor and director of the department of public health and industrial medicine. Other changes include the following:

Dr. Francis D. Speer, associate professor of pathology, director of clinical pathology laboratory.
Earl W. Count, Ph.D., associate professor of anatomy.
Dr. Remick C. Eckardt, associate professor of otolaryngology.
Dr. Margaret R. Reynolds, associate professor of pediatrics.
Dr. L. Corsan Reid, associate professor of physiology and biochemistry.
Malcolm W. Carr, D.D.S., assistant professor of oral surgery, acting head of section of oral surgery.

Advisory Service in Trichinosis.—An advisory service in trichinosis has been established by the bureau of laboratories of the department of health in cooperation with the National Institute of Health. The services are available through the Meinhard Health Center, the bureau of laboratories or the bureau of preventable diseases. The health department is prepared to perform both intradermal and precipitation tests and to examine muscle biopsy material by the compression and digestion methods as a supplement to the usual microscopic studies in order to determine the degree of infection. It will also assist physicians in tracing the source of infection and will examine any pork product under suspicion. In order to derive the maximum benefits of this advisory service, physicians are urged to report promptly all cases in which the possibility of trichinosis is suspected.

Portrait of Dr. Squier.—A portrait of Dr. John Bentley Squier, professor emeritus of urology at Columbia University College of Physicians and Surgeons, was unveiled on July 1 at the Squier Urological Clinic of the Presbyterian Hospital. The portrait, a bequest of the late Adoph S. Ochs, publisher of the New York *Times* from 1896 to 1935, was unveiled by Dr. Squier's grandchildren, J. Squier Reimer, 9 years old, and Ursula Squier Reimer, 12, in the presence of Mrs. Squier, her children, physicians, nurses and technicians of the clinic's staff. Dr. Squier was unable to attend because of ill health. The portrait was presented by Mr. and Mrs. Arthur Hays Sulzberger in their capacity as executors of Mr. Ochs's estate and was accepted in behalf of the clinic by Dean Sage, president of the board of managers, and John F. Bush, executive vice president of Presbyterian Hospital. The portrait is the work of Julian Lamar. The Squier clinic, founded by friends and former patients, was opened in 1928. Dr. Squier was professor of urology at Columbia from 1917 to 1939.

PENNSYLVANIA

Personal.—Dr. Irene F. Laub, Easton, has been appointed chief of the medical service of the Easton Hospital, Easton, during the absence of Capt. Jacob Kincov, who has entered the medical corps of the U. S. Army. Dr. Laub is the first woman to fill this position in the history of the hospital.

First State Health Commissioner Honored.—A bronze tablet was unveiled at Pennsylvania State Tuberculosis Sanatorium, Cresson, June 6, in honor of the late Dr. Samuel G. Dixon, the first commissioner of health of Pennsylvania and the sixty-seventh president of the state medical society. The guest of honor was Mrs. John Semple Sharpe, Haverford, Dr. Dixon's daughter and the only surviving member of his immediate family. Dr. Dixon was appointed commissioner of health by Governor Pennypacker in 1905, taking the office within a few days after the law creating the department of health became effective. He continued in office until his death in 1918, having been reappointed by all of Governor Pennypacker's successors, namely Governors Stewart, Tener and Brumbaugh. He became president of the state medical society in 1917, but because of ill health his duties devolved on the first vice president, Dr. Walter F. Donaldson, Pittsburgh. To Dr. Dixon goes the credit for Pennsylvania officially entering the campaign to curb tuberculosis in 1907. The legislature appropriated money for a system of state dispensaries for the home treatment of tuberculosis and for a sanatorium. Under this act the Pennsylvania State Tuberculosis Sanatorium in South Mountain was created. The legislature of 1909 made a further appropriation under which Dr. Dixon constructed and organized the state sanatorium at Cresson. At the recent unveiling ceremonies Dr. Thomas H. A. Stites, the medical director of Cresson Sanatorium, reviewed Dr. Dixon's career. The tablet was unveiled by Dr. Joseph D. Findley, Altoona, one of the senior physicians connected with the health department and the consulting surgeon of Cresson Sanatorium since its opening. Other speakers included Drs. Lewis T. Buckman, Wilkes-Barre; Charles R. Reynolds, Harrisburg; Robert L. Anderson, Pittsburgh; Benjamin Franklin Royer, Chambersburg; William H. Banks, Mifflintown; Henson F. Tomb, Johnstown, and Joseph Scattergood, West Chester.

Philadelphia

Dulles-Agnew Pavilion Dedicated.—The new building combining the Crothers Dulles Memorial and the D. Hayes Agnew building at the University of Pennsylvania School of Medicine, Philadelphia, was recently dedicated. It has six floors and was erected at a cost of $1,500,000. The building is known as the Dulles-Agnew Pavilion and makes possible the combination of the departments of obstetrics and gynecology to facilitate their increased clinical, teaching and research work and provides additional operating rooms and accommodations for labor and delivery as well as private and semiprivate accommodations. The building now houses the radiologic department, which, in need of expansion, was moved from the J. William White Pavilion. The ophthalmologic department was enlarged by increasing the number of ward beds in private and semiprivate accommodations. Research surgery, formerly a feature of the medical school, was also moved to this building. The sixth floor is devoted entirely to private beds. The facilities have increased the number of beds from 528 to 700.

UTAH

State Medical Meeting in Provo.—The forty-eighth annual meeting of the Utah State Medical Association will be held in Provo, August 27-28. Included among the speakers will be:

Dr. Thomas D. Cunningham, Denver, Sulfonamides in Medicine.
Dr. Frank D. Dickson, Kansas City, Mo., The Use of Sulfonamides in the Treatment of Osteomyelitis.
Dr. John L. Emmett, Rochester, Minn., Resistant Infection of the Genitourinary Tract.
Dr. Howard C. Stearns, Portland, Ore., The Management of Placenta Previa and Abruptio Placentae.
Dr. Franklin G. Ebaugh, Denver, Prevalent Personality Problems of Childhood.
Dr. Willard O. Thompson, Chicago, Recent Advances in the Treatment of Hypogonadism.
Dr. Adolph G. Kammer, East Chicago, Ind., Heat Sickness.
Dr. Casper F. Hegner, Denver, Cancer of the Breast.
Dr. Willis S. Lemon, Rochester, Minn., The Evaluation of Disability From Silicosis.
Dr. Roscoe N. Gray, Hartford, Conn., The Industrial Surgeon and the Insurance Carrier.
Dr. John Z. Brown, Salt Lake City, Delegate's Report of the Session of the American Medical Association.

The program will also include round table discussions and a chest interpretation clinic to which physicians may bring x-ray plates for discussion and interpretation.

WYOMING

State Medical Meeting in Cheyenne.—The thirty-ninth annual meeting of the Wyoming State Medical Society will be held at the Plains Hotel, Cheyenne, August 16-18, under the presidency of Dr. Roscoe H. Reeve, Caspar, and with the Laramie County Medical Society acting as host. The session Monday morning will be devoted to papers covering selective service and procurement and assignment problems. Included among the speakers on the scientific program will be:

Dr. Harry E. Mock, Chicago, The Management of Associated Injuries in the Presence of Craniocerebral Injuries.
Dr. Margaret H. Jones, Cheyenne, Summary of Maternal and Infant Death Study in Wyoming.
Dr. Paul W. Emerson, Cheyenne, Behavior Problems of Children.
Dr. George B. Packard, Denver, Treatment and Prevention of Recurrent Hernias.
Dr. John R. Evans, Denver, Management of Occipitoposterior Presentation.
Dr. Erwin W. Newman, Cheyenne, Importance of Minor Eye Injuries.
Dr. Oscar L. Veach, Sheridan, Treatment of Deafness with Prostigmine.
Dr. James Dewey Bisgard, Omaha, Why Most Gastric Ulcers Are Surgical Problems and the Care of Fresh Contaminated Wounds.
A. E. Roedel, Cheyenne, Problems Affecting the Druggist and the Physician.
Lieut. S. A. Anderson, U. S. Navy, Navy Information of Interest to the General Practitioner.

There will be a symposium on Methods of Evacuation, Recent Aspects of War Surgery, Transfusions and Infusions and War Surgery of Chest Wounds and one on the various conditions and diagnostic treatment of the colon.

GENERAL

Meetings Canceled.—The Central Neuropsychiatric Association has canceled its meeting scheduled to be held in Denver in October on account of the present emergency.——The Midsummer Radiological Conference, usually held in Denver in July or August, has been canceled.

Station to Check Accuracy of Tonometers.—A station for checking the accuracy of Schiötz tonometers is temporarily located at the offices of the National Society for the Prevention of Blindness, 1790 Broadway, New York, under the direction of Dr. Adolph Posner. Inquiries about this service will be welcomed.

Subject Matter Consultant Named for Public Health Association.—Dr. Mary Steichen, New York, has been appointed subject matter consultant in public health practice to the merit system study of the American Public Health Association. According to an announcement, the consultative services rendered by the association to the various states are in connection with competitive examinations (assembled, unassembled, objective or essay) and are designed to insure that the results of these examinations in the several public health fields would meet the approval of professional workers in those fields.

Grants for Training in Physical Therapy.—The National Foundation for Infantile Paralysis, Inc., New York, has announced the following four grants totaling $20,220 to provide scholarships and training in the field of physical therapy:

D. T. Watson School of Physiotherapy, Leetsdale, Pa., $4,500 to provide training in physical therapy for additional students.
American Physiotherapy Association, Stanford University, Calif., $5,000, to provide fifty scholarships for properly qualified students in physical therapy.
School of Health, Stanford University, $6,920 to provide training in physical therapy for additional students.
Northwestern University Medical School, Chicago, $3,800 to provide training in physical therapy for additional students.

Since last May the foundation has awarded grants totaling $347,564.25 to carry on research and educational programs.

Special Society Elections.—Dr. Jay Arthur Myers, Minneapolis, was chosen president-elect of the American College of Chest Physicians during its annual meeting, June 6, in Atlantic City, and Dr. J. Winthrop Peabody, Washington, D. C., was inducted into the presidency. Vice presidents are Drs. Richard H. Overholt, Brookline, Mass., and George G. Ornstein, New York. Dr. Paul H. Holinger is secretary-treasurer and Murray Kornfeld, Chicago, executive secretary. New by-laws were unanimously adopted at the meeting and authorization given to the executive council to take the necessary steps to incorporate the college under the laws of the state of Illinois. The executive council was also created at this meeting.——Dr. George O. A. Kellogg, Nampa, Idaho, was chosen president-elect of the Pacific Northwest Medical Association at its meeting in Portland, Ore., June 19, and Dr. Leon S. Gilpatrick, Spokane, Wash., was installed as president. Dr. Clyde W. Countryman, Spokane, was reelected secretary-treasurer. The 1943 annual session will be held in Spokane.

Foreign Letters

LONDON

(From Our Regular Correspondent)

July 4, 1942.

The Threat of the Falling Birth Rate

The minister of labor states that 22 million out of our total population of 35 million between the ages of 14 and 64 years are engaged in the war effort—in the armed forces, in civilian defense or in war industries. He claims that no other country has ever mobilized its manpower to this extent. Yet in the face of this greatest crisis in our history, and indeed in the history of the world, the country remains perfectly calm, and peacetime activities, except those which would in any way interfere with the war effort, continue. It is now shown by the publication (in limited form because of war conditions) of a memorandum by the Ministry of Health on "The Current Trend of Population in Great Britain." As stated in previous letters, the fall of the birth rate has reached a stage which, if the present rate continues, renders a decline of population inevitable in the near future. In the past century the population of Great Britain continuously increased. In the decade 1871-1881 the annual rate of increase was 1.30 per cent, since which time it has almost continuously fallen. The rate prior to the last war was of the order of 1 per cent, but during that war it abruptly fell to less than half that figure, at which it has remained since. This decline is reflected in the number of births. These rose from 600,000 per annum one hundred years ago to 1,000,000 between 1876 and 1914, with a peak of 1,082,000 in 1903. Then they declined to 700,000, at which level they remain today. As a result the population at the middle years of life is weighted compared with the youngest and oldest sections, for it has sprung from the period of highest births.

During the same period a great change has also occurred in the death rate, which has to some extent counteracted the effect on population of the fall in the birth rate. In the past seventy years the rate has been halved. The improvement has been greatest in the age groups 5 to 10, in which deaths are occurring at only a fourth of the frequency of the middle of the last century. This fall in the death rate has postponed a decline of population but cannot prevent it. There is an increased and an increasing proportion of the older persons in our population, but children are not being born in sufficient number for replacement. The annual birth rate in the quinquennium 1871-1875 was 35.4 per thousand. Since then it has almost continuously fallen until now it is below 16. This is only three fourths of the rate necessary for maintenance of the population.

The falling birth rate is a problem in many civilized countries. During the years before the war the women of France and of Scandinavia, as well as of Britain, were not producing enough female children to replace them when the new generation would in its turn be ready for motherhood. Though a decline of our population is certain under the present birth rate, the great social changes which seem likely to follow the war may counteract the trend. In the early part of the war there was a remarkable increase in the number of marriages, which seems to have been due to the incentive of allowances for the wives of men joining the armed forces. The result was that, notwithstanding the disruption of family life, the birth rate did not fall by more than 10 per cent. The Ministry of Health points out that our population could be maintained if the fertility of the female population was raised 19 per cent above the 1938 level. It is possible that the government may try to bring this about by family allowances.

Social Expenditure and the War

About half of the total national income is now being devoted to the war. Yet demands continue to be made for increase of the great expenditure on social relief. There are over four million old age and contributory pensioners, some eight hundred and sixty thousand widows in receipt of pension, and two hundred and fifty thousand allowances are paid in respect of dependent children of widows and orphans. A labor motion has been carried in the House of Commons asking the government to examine the difficulties of widows and old age pensioners created by the war with a view to action. A motion has also been tabled, with the support of all parties, urging the government to formulate a state paid scheme of allowances for dependent children as a means of safeguarding the health and well-being of the rising generation. To this an amendment has been put down, recognizing that under the stress of competition not all parents can fulfil their responsibility to maintain and educate their children, but asking the government to consider to what extent the health and well-being of such children can be safeguarded without impairing the privacy and continuity of family life and the responsibility of parentage. As pointed out in previous letters, the government is confronted by the fundamental dilemma that the increased cost of living due to the war produces demands for increased wages and increased grants, while yielding to these demands further increases the cost of living.

Nurseries for Working Mothers

Our women are playing a great part in the war effort. The younger ones who are not engaged in munition work are conscripted for the auxiliary war services. But the prior claim of young children on mothers is of course recognized. Nevertheless, many mothers are performing war work. To facilitate this the government is opening rapidly wartime nurseries for women doing war work. During May they were opened at the rate of nearly three a day. There are now 540 nurseries open, 576 will open soon and 216 are in preparation, a total of 1,332. The London region has just opened its hundredth day nursery and has 157 more in preparation. Premises which are being used for the purpose include first aid posts, vicarages, church and mission halls, hospitals, clinics and prefabricated huts.

Red Cross Makes Arrangements for First Leave of American Soldiers

Every American unit of five thousand men has its American Red Cross field director, who lives in the camp or barracks and acts as a link with their families. In London the Red Cross is making arrangements for the American soldiers whose first leave is due since their arrival in northern Ireland. Mr. Bernard S. Carter and Mr. William E. Stevenson, American Red Cross delegates to Great Britain, are in charge of the work, which includes the setting up of clubs and sleeping quarters for the men on leave and coordinating many offers of private hospitality. Thus an American might wish to visit Wales and get in some fishing there. This will be arranged with the right hosts. It is recognized as important that the people who are brought together should be likely to be congenial company.

Mobile Resuscitation Unit for Air Raid Casualties

A mobile resuscitation unit for the treatment of casualties due to air raids, the first of the kind, has been presented at Bradford to the regional commissioner for civil defense. It will be used under the Ministry of Health regional blood transfusion service. The unit has been given by the Bradford Red Cross and Services Comfort Fund. It has the great advantage that a miniature resuscitation ward can be set up wherever needed—in a first aid post or village hall or even by the roadside.

Deaths

Richmond McKinney, Memphis, Tenn.; Memphis Hospital Medical College, 1894; formerly professor of otology, laryngology and rhinology at the University of Tennessee College of Medicine; member of the American Academy of Ophthalmology and Otolaryngology, the American Laryngological Association, the American Laryngological, Rhinological and Otological Society and the American Broncho-Esophagological Association; past president and secretary of the American Bronchoscopic Society; fellow of the American College of Surgeons; specialist certified by the American Board of Otolaryngology; aged 68; formerly on the staffs of the John Gaston and Baptist Memorial hospitals, at the latter of which he died, June 30, of cerebral thrombosis.

Harry Albert Schneider, Coldwater, Mich.; University of Vermont College of Medicine, Burlington, 1909; member of the Michigan State Medical Society and the American Psychiatric Association; specialist certified by the American Board of Psychiatry and Neurology, Inc.; served in France with the Black Hawk Division during World War I; for several years was an executive officer of the Boston Psychopathic Hospital; formerly assistant superintendent and chief of the medical staff of the Michigan Home and Training School, Lapeer; medical superintendent of the Coldwater State Home and Training School; aged 56; died, May 25, in Boston of diabetes mellitus.

Marvin Fletcher Haygood ✠ Des Moines, Iowa; Atlanta (Ga.) Medical College, 1915; director of local health services and deputy health commissioner of the Iowa State Department of Health; formerly medical director of the Georgia emergency relief administration in Atlanta; director of county health work for the Georgia State Board of Health from 1918 to 1922; for six years city health officer of Knoxville, Tenn.; at one time superintendent of the Georgia Tuberculosis Sanatorium, Alto; aged 57; died, June 28, in the Iowa Methodist Hospital of coronary thrombosis.

David Lawrence Williams, Winthrop, Mass.; Tufts College Medical School, Boston, 1906; member of the New England Society of Psychiatry; assistant director, division of biological laboratories, Massachusetts Department of Public Health from 1918 to 1921; member of the U. S. Public Health Service from 1921 to 1936, serving as bacteriologist and pathologist on the staffs of Veterans Administration facilities in Oteen, N. C., Rutland, Mass., West Roxbury, Mass., and Bedford, Mass.; state commissioner of mental diseases from 1936 to 1938; aged 65; died suddenly, June 7, of myocarditis and bundle branch block.

Oliver Howard Jackson ✠ Fall River, Mass.; Long Island College Hospital, Brooklyn, 1894; specialist certified by the American Board of Otolaryngology; member of the American Laryngological, Rhinological and Otological Society, the New England Ophthalmological Society and the New England Otological and Laryngological Society; fellow of the American College of Surgeons; ophthalmologist, Union and St. Anne's hospitals; consulting ophthalmologist, Fall River General Hospital; aged 70; died, June 1, of coronary occlusion, arteriosclerosis and hypertensive heart disease.

David Albert Doty, Denver; University of Nebraska College of Medicine, Omaha, 1925; member of the Colorado State Medical Society; fellow of the American College of Surgeons; on the staffs of the Denver General, Presbyterian, St. Luke's, St. Joseph's hospitals and the Mercy Hospital, where he died, June 2, of massive collapse of the right lung and pneumonia following an operation for acute appendicitis, aged 41.

Charles V. Stephenson, Centerville, Tenn.; Vanderbilt University School of Medicine, Nashville, 1894; University of Nashville Medical Department, 1902; member of the Tennessee State Medical Association; president of the Hickman County Medical Society; county health officer; aged 77; died, May 2, in the Vanderbilt Hospital, Nashville, of arteriosclerosis.

Charles Willis Larned ✠ Baltimore; University of Maryland School of Medicine, Baltimore, 1893; at one time professor of clinical medicine at the Woman's Medical College of Baltimore; formerly on the staffs of the Good Samaritan Hospital and the Johns Hopkins Hospital; aged 72; died, June 4, of hypertensive cardiovascular disease.

Benjamin Brunner Sr. ✠ Wamego, Kan.; Kansas City (Mo.) Medical College, 1903; past president of the Golden Belt Medical Society and the Pottawatomie County Medical Society; member of the state senate from 1916 to 1920; aged 63; died, May 22, of sarcoma of the head of the right humerus.

Romaine C. Hoffman, Narberth, Pa.; Hahnemann Medical College and Hospital of Philadelphia, 1907; instructor of medicine at his alma mater; on the staff of the Hahnemann Hospital, Philadelphia; a member of the draft board during World War I; formerly county coroner; aged 59; died, May 11.

Daniel Leon Elkins, Long Beach, Calif.; University of Kharkov Faculty of Medicine, Russia, 1910; Columbia University College of Physicians and Surgeons, New York, 1924; served in the medical corps of the Imperial Army during World War I; aged 57; died, June 8, of heart disease.

William John Moldenhauer ✠ Chicago; College of Physicians and Surgeons of Chicago, School of Medicine of the University of Illinois, 1906; on the staff of the Lutheran Deaconess Hospital; aged 60; died, June 30, at his summer home in Birchwood, Wis., of myocarditis and nephritis.

Claus Peter Hoyer Kjaerbye ✠ Fresno, Calif.; Københavns Universitet Laegevidenskabelige Fakultet, Denmark, 1892; member of the American Psychiatric Association; specialist certified by the American Board of Psychiatry and Neurology, Inc.; aged 74; died, May 6.

George M. Hoover ✠ Lancaster, Pa.; Hahnemann Medical College and Hospital of Philadelphia, 1889; formerly member of the city council; served on the civil service examining board of the police department; formerly police physician; aged 76; died, May 19, in St. Joseph's Hospital.

Jefferson Davis Singleton, Maryville, Tenn.; Vanderbilt University School of Medicine, Nashville, 1887; member of the Tennessee State Medical Association; formerly health officer of Maryville; aged 79; died, May 31, of pulmonary tuberculosis.

De Witt Price Higgs ✠ Chula Vista, Calif.; Bennett College of Eclectic Medicine and Surgery, Chicago, 1907; veteran of the Spanish-American War and World War I; aged 65; died, May 17, of coronary occlusion and chronic myocarditis.

Daniel Lee High, Beverly Hills, Calif.; George Washington University School of Medicine, Washington, D. C., 1907; formerly surgeon in the U. S. Public Health Service reserve; aged 68; died, May 30, of chronic myocardial degeneration.

Libertad Roberts Gaetan, San Juan, P. R.; Harvard Medical School, Boston, 1932; member of the Medical Association of Puerto Rico; medical director of the Insular Tuberculosis Sanatorium, Rio Piedras; aged 34; died, May 5.

Henry Max Lissack, Concordia, Mo.; Homeopathic Medical College of Missouri, St. Louis, 1903; examining surgeon for the Bureau of Pensions, Department of the Interior, at Lexington; aged 78; died, June 20, of cerebral hemorrhage.

Joseph Henry Downing, Rising City, Neb.; Rush Medical College, Chicago, 1882; member of the Nebraska State Medical Association; aged 86; died, May 27, in the Lutheran Hospital, Columbus, of shock due to a fractured hip.

John Davidson Frame, Resht, Iran; University of Pennsylvania Department of Medicine, Philadelphia, 1904; for many years a medical missionary; in charge of general medical work at the American Hospital; aged 61; died, June 11.

C. D. Barnes, Lakeland, Fla.; Medical College of Alabama, Mobile, 1897; aged 76; died, June 1, in the Florida State Hospital, Chattahoochee, of carbuncle of the back and hypertensive cardiovascular disease.

Raymond W. Moore ✠ Eureka, Kan.; University Medical College of Kansas City, Mo., 1899; county health officer; aged 69; died, May 16, of uremia and cardiac insufficiency.

William Miller Thorne, Charleston, S. C.; University of Michigan Department of Medicine and Surgery, Ann Arbor, 1910; aged 61; died, May 13, of coronary occlusion.

H. Clay Foster, Beaufort, S. C.; University of Georgia Medical Department, Augusta, 1900; aged 67; died, May 22, of coronary thrombosis.

DIED IN MILITARY SERVICE

Donald Stanley Gidley, Ontario, Calif.; University of Oregon Medical School, Portland, 1930; member of the California Medical Association; was called to active duty March 3, 1941 as a captain in the National Guard, Medical Detachment, 185th Infantry; aged 36; stationed at Fort Lewis, Wash., where he died, July 6, of coronary occlusion.

Current Medical Literature

AMERICAN

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Titles marked with an asterisk (*) are abstracted below.

American Journal of Diseases of Children, Chicago

63:839-1018 (May) 1942

Pectin and Galacturonic Acid and Intestinal Pathogens. S. C. Werch, R. W. Jung, H. Plenk, A. A. Day and A. C. Ivy, Chicago.—p. 839.
Monozygosity in Mongoloid Twins. Norma Ford, Toronto, Canada, and Sylvia Frumkin, Greystone Park, N. J.—p. 847.
Erythroblastic Anemia Following Splenectomy in Cases of Chronic Familial Hemolytic Anemia. E. Stransky and A. C. Regala, Manila, Philippine Islands.—p. 859.
Study of Pertussis Antibodies: Protective, Agglutinating and Complement Fixing Antibodies in Patients with Pertussis, Persons Exposed to Pertussis and Persons with No Known Exposure. Lucy Mishulow, M. Siegel, Lillian Leifer and Sadie R. Berkey, New York.—p. 875.
Method of Assaying Trypsin Suitable for Routine Use in Diagnosis of Congenital Pancreatic Deficiency. Dorothy H. Andersen and Marialuise V. Early, New York.—p. 891.
Is the Presence of Bile and Food in Small Intestine Necessary for Formation of Prothrombin? Studies on Three Infants, One with Congenital Absence of the Gallbladder and Extrahepatic Ducts and Two with Congenital Atresia of the Esophagus. H. N. Sanford and Irene Shmigelsky, Chicago.—p. 894.
Respiratory Metabolism in Infancy and in Childhood: XXV. Specific Dynamic Action of Amino Acids in Infants. M. Dann, M. D. Kelly, H. McNamara and J. C. Curtis, New York.—p. 900.
Congenital Absence of the Four Extremities: Case Report. W. P. Killingsworth, Port Arthur, Texas, and R. Engledow, Anahuac, Texas.—p. 914.
*Typhoid at the Age of Fourteen Months: Case Report. H. G. Bull, Ithaca, N. Y.—p. 919.
Enterogenous Pulmonary Cyst: Case Report. I. M. Ward and J. B. Krahl, Flint, Mich.—p. 924.
Design Characteristics of Double Cubicle System for Protecting Babies in Nurseries. J. A. Reyniers, Notre Dame, Ind.—p. 934.
Retinoblastoma of Infants and Children: Its Significance as Pediatric Problem. S. J. Nichamin, Detroit.—p. 945.

Typhoid at Age of Fourteen Months.—According to Bull, symptoms of typhoid in children have always varied considerably from the clinical picture in adults. So variable is the picture that undoubtedly many cases are not discovered. Children with blood yielding typhoid bacilli on culture have been born during the course of typhoid in the mother, and there is evidence of transmission of the disease through the placenta and through breast milk. The author's patient, a girl aged 14 months, had not been out of town or eaten away from home, and no one among her associates had been ill. The mother had had typhoid thirty years previously. The father's stools did not contain typhoid bacilli; culture of the mother's stools yielded a luxuriant growth.

Bulletin New York Academy of Medicine, New York

18:367-430 (June) 1942

*Neurocirculatory Asthenia and Related Problems in Military Medicine. B. S. Oppenheimer, New York.—p. 367.
Present Status of the Diagnosis of Uncomplicated Syphilitic Aortitis. E. P. Maynard Jr., Brooklyn.—p. 383.
Coagency in Approach to Problem of Rheumatic Heart Disease. E. S. Rogers, Albany, N. Y.—p. 392.
Studies on Headache: Mechanisms and Significance of Headache Associated with Brain Tumor. E. C. Kunkle, B. S. Ray and H. G. Wolff, New York.—p. 400.

Neurocirculatory Asthenia.—Oppenheimer points out that neurocirculatory asthenia becomes more intensified, better defined and more common under military conditions than in civil life. An abnormal reactivity of the nervous system, including the innervation of the circulatory system, probably accounts for the varying neuropsychosomatic symptoms of the disorder. The symptoms are physiologic and psychologic. A history of constitutional physical asthenia is obtained in about 70 per cent of recruits or soldiers with psychoneurotic factors. Some of these soldiers, forced out of bed and obliged to take graduated exercises for a period of weeks, return to high grades of physical exercise and to military duty. In exceptional instances the diagnosis is doubtful for weeks and is helped by the therapeutic test of physical training. Paroxysmal tachycardia, premature beats and sinus arrhythmia occur in the course of neurocirculatory asthenia. Pure fear can temporarily produce changes in the electrocardiogram which somewhat resemble those of coronary insufficiency. In the differential diagnosis pulmonary tuberculosis, toxic diffuse goiter, early organic valvular disease, rheumatic carditis and hypertension must be considered. The question of prognosis is divided into (1) immediate, based on response to graduated physical exercise, and (2) ultimate, after return to civil life. The ultimate prognosis of 601 soldiers followed by Grant for five years shows that 15.3 per cent were fit, 17.8 improved, 56.2 stationary, 3.2 worse, 8.7 had some serious disease and 2.3 per cent died. This general prognosis is modified by the age of the patient and tolerance to exercise: the younger the patient and the better his tolerance to exercise the greater are his chances of ultimate recovery. The latest statistics among 115,569 registrants in the New York City area were that 12,261, or 10.61 per cent, were rejected because of disease of the heart, blood vessels and circulation, 195 were rejected for neurocirculatory asthenia and many (1,180) instances of neurocirculatory asthenia were rejected under the caption of tachycardia or of one of the psychoneuroses. Registrants with neurocirculatory asthenia, unless it is mild, are disqualified by the draft board and classed IV-F, but if mild, they are classed I-A and accepted for full duty. Treatment is preventive and curative. The latter consists in attempts at physical and psychologic rehabilitation, best accomplished by the collaboration of the cardiologist and the neuropsychiatrist. Preventive treatment must allow a proper convalescent period after any infection or severe operation. After complete recovery, patients should be gradually hardened before returning to full duty. Neurocirculatory asthenia should be recognized early, especially in children, and measures taken to prevent the condition from becoming chronic.

Oklahoma State Medical Assn. Jour., Oklahoma City

35:185-230 (May) 1942

Physiologic Approach to Gynecology. J. C. Burch and C. A. Mella Jr., Nashville, Tenn.—p. 185.
Obstetric Psychosis. B. R. Hinson, Enid.—p. 190.
Hygiene in the Tropics. W. Morledge, Oklahoma City.—p. 193.
Coronary Thrombosis. F. Moorman, Oklahoma City.—p. 196.

Southern Surgeon, Atlanta, Ga.

11:305-384 (May) 1942

Fractures of the Shaft of the Humerus. W. G. Stuck and J. J. Hinchey, San Antonio, Texas.—p. 305.
Scalenus Anticus Syndrome: Compression of Trunks of Brachial Plexus and Subclavian Vessels. F. Jelsma, Louisville, Ky.—p. 316.
*Sulfadiazine Treatment of Burns. W. M. Adams and J. K. Crawford, Memphis, Tenn.—p. 324.
Precautions in Surgery of the Stomach. W. H. Cole, Chicago.—p. 341.
Training the Medical Department Soldier. G. H. Teasley, El Paso, Texas.—p. 355.
Chronic Pelvic Disease Resulting from Childbirth: Improved Operative Technic. R. J. Wilkinson, Huntington, W. Va.—p. 359.
Early and Late Treatment of Face and Jaws as Applied to War Injuries. R. H. Ivy, Philadelphia.—p. 366.

Sulfadiazine Treatment of Burns.—Since October 1941 Adams and Crawford have applied sulfadiazine as the initial therapeutic agent to all fresh burns. From their experience in 50 cases they feel that the preparation consisting of 3 per cent sulfadiazine in 8 per cent triethanolamine presents definite advantages over all other closed methods of treatment of burns: (1) It makes the patient more comfortable; (2) it tends to inhibit infection, especially during the early period of treatment, and in this respect is unquestionably more efficacious than either tannic acid or aniline dyes; (3) it does not stain the linen or bed clothing, as do the aniline dyes; (4) the eschar is slightly flexible, thus affording the patient more freedom of movement than is possible with the thick tannic acid eschar, and (5) when infection develops, the eschar is easily removed with dressings saturated with saline solution or oil. The authors plan to continue the treatment using a modified formula of a 1.5 per cent sulfadiazine in 3 per cent triethanolamine with the addition of aerosol, methocel and sodium benzoate.

FOREIGN

An asterisk (*) before a title indicates that the article is abstracted below. Single case reports and trials of new drugs are usually omitted.

British Journal of Radiology, London

15:129-154 (May) 1942

Pharmacologic Actions of Some Contrast Mediums and Comparison of Their Merits. M. Weatherall.—p. 129.
Case of Osteochondritis Dissecans Occurring in a Young Soldier Accepted for Military Service. R. J. C. Campbell.—p. 138.
Faculty of Radiologists: Discussion on Constitutional Effects of Radiation, with Special Reference to Volume Dose. D. W. Smithers, F. Ellis and L. G. Grimmett.—p. 141.
Method of "Dose Finding" for Combinations of Rectangular Radiation Fields. C. W. Wilson.—p. 145.
Transposition of the Aortic Arch: Report of Three Cases. J. V. Sparks and D. M. Scrimgeour.—p. 150.
Case of Spina Bifida Occulta of the Twelfth Dorsal and First Lumbar Vertebra. M. P. Morel.—p. 154.

Guy's Hospital Reports, London

91:1-68 (No. 1) 1942

*Pathogenesis of Sprue Syndrome as Seen in Tropical Sprue, Nontropical Sprue and Celiac Disease. A. Hurst.—p. 1.
Severe Case of Sprue Syndrome; Lasting from Three to Nine, with After-History to Twenty-Five. A. Hurst.—p. 22.
Sprue Syndrome from Obstruction of Lacteals by Chronic Tuberculosis of Mesenteric Lymph Nodes. A. Hurst, G. P. Wright and J. A. Ryle.—p. 25.
*Excision of Patella for Fracture, with Remarks on Ossification in Quadriceps Tendon Following Operation. S. H. Wass and E. R. Davies.—p. 35.
Fatal Tapeworm Enteritis. A. Hurst and A. H. T. Robb-Smith.—p. 58.
Traumatic Duodenal Ulcer; Repeated Hematemesis from Postoperative Hemorrhagic Gastritis. A. Hurst, W. H. Ogilvie and C. K. Simpson.—p. 61.

Pathogenesis of Sprue Syndrome.—Hurst states that tropical sprue, nontropical sprue and celiac disease are varieties of the same disorder—the sprue syndrome. The part of the world in which the disorder originates and the age of the patient are the only differentiating factors of the syndrome. The sprue syndrome has three characteristics and constant features: (1) The stools contain an excess of split fat but no excess of neutral fat, meat fibers or starch and no inflammatory material, (2) roentgenography reveals the disappearance of the normal feathery or herring bone aspect of the duodenum and jejunum produced by the valvulae conniventes and (3) no pathologic changes are present in the intestine after death if postmortem changes have been prevented. With adequate treatment the normal absorption of fat and the normal roentgenographic appearance of the small intestine are restored. It is suggested that the characteristic features of the sprue syndrome result from paralysis of the muscularis mucosae, which leads to loss of the pumping action of the villi and to flattening of the valvulae conniventes without changes in the mucous membrane. Paralysis of the muscularis mucosae may be secondary to loss of the normal stimulant of Meissner's (submucosal) plexus or to the effect of vitamin deficiency or some toxemia on the plexus. An exception must be made for cases associated with disease of the mesenteric lymph nodes in which fat absorption is hindered at the level of the mesenteric glands instead of in the villi.

Excision of Patella.—From June 1937 to December 1940, 34 patients with a simple fracture of the patella were admitted to Guy's Hospital. The fracture was transverse with separation in 17, transverse without separation in 4, stellate with separation in 5, stellate without separation in 4 and with a single longitudinal break in 4. Most of the patients were treated on orthodox lines, but 8 with simple transverse fractures with separation, Wass and Davies state, were submitted to excision of the patella. Seven of the 8 were examined and followed up; the eighth patient replied to a questionnaire. Ossification in the quadriceps tendon was noticed frequently. The results in the 7 cases are far from impressive after a follow-up period of from more than three years to five months. Only 2 patients were able to return to work within ten weeks, the remainder having "off work" periods much in excess of this, and 2 have not returned to their work at all. In no single case was recovery of function in the knee joint, even after relatively long follow-up periods, complete. Only 4 other patients with transverse fractures and 2 with comminuted fractures treated during the same period could be examined; their average "off work" period was five months less than in the excision group. The 5 men in the group were able to return to their original strenuous occupation. Still more important, 3 of the patients with transverse fracture showed complete recovery of function of the knee as evidenced by a full range of movement, a stable joint, no osteoarthritis and complete absence of symptoms when examined at periods up to three years after the operation. The symptoms of the patients in whom the patella has been excised are significant. Pain occurred in 4, stiffness was complained of by 5, and the stiffness was associated with a decided limp in 3, with inability to kneel in 5 and with inability to run in 6 of the 7. All had difficulty on stairs, having to walk stiff legged. A feeling of insecurity was a prominent symptom in 5; 3 of them have had falls when walking on level ground. Flexion of the knee joint was limited in all, the power of the quadriceps, in spite of the absence of wasting, was 2 to 4 pounds below that of the opposite leg in 5 of the 6 in whom it was measured, and some ossification in the quadriceps tendon occurred in the 6 patients whose knees were examined roentgenologically. The authors conclude that their cases are too few to allow any dogmatic conclusions, but the uniformity of the bad results strongly suggests that the operation does not possess the advantages claimed for it. Brooke's claims of a decreased period of disability and increased power in the knee joint are not substantiated, nor are the disadvantages of pain and limited flexion ascribed to other operative procedures eliminated by total excision of the patella. The pathologic ossification after the operation is a definite disadvantage.

Zeitschrift für Immunitätsforschung, Jena

99:409-466 (May 12) 1941. **Partial Index**

Studies on Normal Agglutinins Against Proteus X Strains. Hildegard Buchwald.—p. 409.
"Infection" During Denaturation of Protein and Its Relation to Virus Proliferation. H. Moriyama and S. Ohashi.—p. 419.
*Constancy of Blood Groups. A. Lauer.—p. 433.
Occurrence of Positive Syphilitic Reactions in Serum of Horses. F. Jahnel.—p. 151.
Specific Lipoid Antibodies of Heptospira in Human Serum and Their Practical Significance in Diagnosis of Leptospiroses. E. Carlinfanti.—p. 460.

Constancy of Blood Groups.—A homotransplant from one sister to another gave Lauer the opportunity to observe a reversible change in the blood group of one of the sisters. A young girl had lost the right leg in a railroad accident. To save the injured left foot a skin graft was made from her sister. The two sisters, who were of the blood groups OM and A_1 MN respectively, were connected with each other by a transplant which involved a communication between the two circulations. Whereas the recipient of the skin graft tolerated the foreign OM blood as such, the donor developed an extremely strong immune body against the A antigen of the recipient. Thus the donor gradually destroyed the A blood, which flowed into her from the recipient, and she developed the clinical symptoms of a hemolytic icterus. The blood cells of the recipient decreased to such an extent that the group characteristics A_1 and N were no longer demonstrable. From this and from serologic experiments it was concluded that three fourths of the blood circulating in the recipient consisted of the OM blood of the donor. However, this OM blood could not replace the lost A cells, because it always returned to the circulation of the donor. In spite of an overactive erythropoiesis in the recipient, her condition seemed so grave after eight days of being joined to her sister that the union had to be severed. The subsequent serologic transformation in the recipient from OM by way of A_2M toward A_1 MN was completed in two weeks. This restoration of the original blood structure provides an experimental proof of the constancy of blood groups. The described homotransplant indicates that artificial symbiosis is possible in human subjects but that it should be attempted only in persons of the same blood group. The difference in the MN factors apparently is of no importance, but the possibility of the development of anti A or anti B antibodies seems decisive.

Book Notices

Intelligence, Power and Personality. By George Crile. Edited by Grace Crile. Cloth. Price, $3. Pp. 347, with 42 illustrations. New York & London: Whittlesey House, McGraw-Hill Book Company, Inc., 1941.

This is an interesting volume but it does not completely live up to its title. Dr. Crile became much interested in the relationship of the size of the brain and the various organs to the activities of animals. For that reason he, his family and his staff made field trips to the tropics, to the subarctic regions and to Guatemala as well as to various parts of the United States to get specimens of animals for this study.

The book is divided into five parts and a short introduction. The first part deals with the discussion of animal behavior and energy. The second part takes up in detail the behavior of various animals in relation to their body weight, heart weight, adrenal weight and thyroid weight. The third part applies to civilized man, comprising studies in the effect of training and education and including an analysis of weather changes in relationship to various disorders, which Dr. Crile correlates with some of his findings. The fourth part is a summary and discussion which points out that the findings fall in with Dr. Crile's bipolar theory of life—that there is a constant relationship of the size of the brain to the energy output, that animals which move quickly have an excessive adrenal weight, that temperature, humidity and storm influence the energy controlling organs. One might emphasize the statement "Intelligence, power and personality are dependent on the absolute and relative size of the brain, the thyroid gland, the heart and blood volume, the celiac ganglia and plexuses, and the adrenal-sympathetic system." The last part of the book is an appendix, comprising twenty-six pages of tables giving data about the various specimens which were studied. The book is highly technical and well illustrated with diagrams. There are several graphs and a number of small and large tables. It must be considered as a contribution to zoological and physiologic theory, and one must admire Dr. Crile for his energy in collecting the material, compiling it and reaching his very interesting conclusions.

Survey of Compounds Which Have Been Tested for Carcinogenic Activity. By Jonathan L. Hartwell, Research Fellow, National Cancer Institute, National Institute of Health, United States Public Health Service, Federal Security Agency, United States Public Health Service. Paper. Pp. 371. Bethesda, Maryland, 1941.

This is a pamphlet bound in paper and printed by the offset process, presumably for distribution by the United States Public Health Service. The title describes the contents. It is a bibliography of practically all the important compounds which have been tested as carcinogenic agents. It does not include an enormous number of products which have been used in treating animal tumors in a purely routine fashion in order to see whether any one of these substances, most of them belonging in the group of dyes, have any therapeutic property. While most of the substances studied for their carcinogenic quality have a phenanthrene nucleus, reference is made also to various organic acids and substances such as formaldehyde, for example, and a considerable number of inorganic compounds, of which, of course, radium, thorium dioxide and other radioactive substances are known to be carcinogenic. Also the strange results which have been obtained in producing testicular teratomas by the application of zinc salts are referred to. Most of the animals used in all this work were mice, of which the number of animals is given under each reference, and also the duration of the experiment, which is an important fact. Rabbits have proved very sensitive to mesothorium, and tumors have been produced in guinea pigs by the prolonged action of small quantities of radium, while roosters seem to be especially susceptible to zinc chloride.

The volume is completed by a large bibliography and a satisfactory index, which includes not only the substances referred to as possibly carcinogenic but also the route and site of application of the substances, a species index, a tumor site index and a vehicle index. The book represents an enormous amount of labor, and every one who is doing cancer research should be grateful to the National Institute of Health for furnishing such an invaluable and labor saving survey. There is properly no reference to that malodorous paper which appeared in the *Zeitschrift für Krebsforschung* a few years ago concerning the alleged production of sarcomas in rats by the injection of tomato juice. It is now generally agreed that the tumor found in the animals was the Jensen rat sarcoma introduced by a technician ambitious to please his employer.

One generalization can be made from the contents of this work: that there is presumably no specific carcinogenic substance, because tumors have been produced in susceptible animals with the most extraordinary variety of chemical substances. It is obvious that any agent which causes continuous proliferation of cells without causing too much tissue destruction may prove to be a carcinogenic agent.

Motivation and Visual Factors: Individual Studies of College Students. By Irving E. Bender et al. Cloth. Price, $4. Pp. 369. Hanover, N. H.: Dartmouth College Publications, 1942.

This publication represents a careful and exhaustive report on investigations of the visual and psychologic factors observed and studied by Bender, Imus, Rothney, Kemple and England on members of the 1940 class at Dartmouth College. The report covers a study of the academic accomplishments, health and scholastic aptitude as well as visual measurement data, psychologic tests and interviews over the four year period of attendance. The class comprised over five hundred members, and intensive studies were made of one hundred and twenty-four of the total. Twenty of these, including psycho-portraits of each, were chosen for presentation in this work. Extreme deviations in visual factors do not cause maladjustments but, instead, furnish possibilities for alibis, rationalization for feelings of inferiority or conversely incentive for compensations. How the visual factor was utilized depended entirely on the personality structure of the individual. In this connection the work appears to go a long way toward disproving the adlerian theory of organ inferiority as being of paramount importance in the determination of personality development. This book should be of interest to parents who have children with visual defects as well as for ophthalmologists, students of psychology and educators as a whole. It is to be hoped that other studies of a similar character will be made and reports published in allied fields. Personality structure is fairly well established long before admission to college, and therefore constructive application of the findings contained in this report should begin during the formative years of childhood. For this reason, if for no other, this work should be particularly studied and evaluated by those educators who play such a leading role in influencing the early development of human personality.

A Study of the Blood in Cancer with Special Reference to the Needs of the Tumour Clinic. By O. Cameron Gruner, M.D. Cloth. Price, $4. Pp. 100, with 40 illustrations. Montreal: Renouf Publishing Company, 1942.

This book discusses the results of studies of the blood, fresh and in stained films, with special reference to cancer. The microscopic method is described in detail. Any claim that there is a blood test or state which is specific for cancer is not advanced, but attention is focused on a pattern of feature which may have diagnostic significance in certain cases of cancer. The practical value of the method, if it has any, remains to be determined. The evidence presented in the book is not conclusive or impressive.

Human Skeleton Showing Principal Arterial Circulation (First Aid Pressure Point Chart). Cloth-backed paper, with wood rollers top and bottom. Price, $2.25. Size 18" x 54". New York: Clay-Adams Company, Inc., 1942.

The publishers have prepared on heavy stock, reinforced with linen, an anatomic chart showing the skeleton of the human body in outline as well as the external surfaces and then in brilliant red have indicated the large arteries of the body, the points of pressure for application of pressure to prevent hemorrhage, the bones and other indications as to the points of application for tourniquets. A schematic design of this type is invaluable to all classes in first aid and also for the training of nurses and nurses' aides.

Queries and Minor Notes

THE ANSWERS HERE PUBLISHED HAVE BEEN PREPARED BY COMPETENT AUTHORITIES. THEY DO NOT, HOWEVER, REPRESENT THE OPINIONS OF ANY OFFICIAL BODIES UNLESS SPECIFICALLY STATED IN THE REPLY. ANONYMOUS COMMUNICATIONS AND QUERIES ON POSTAL CARDS WILL NOT BE NOTICED. EVERY LETTER MUST CONTAIN THE WRITER'S NAME AND ADDRESS, BUT THESE WILL BE OMITTED ON REQUEST.

EFFECT OF FLUOROSCOPY ON EYES

To the Editor:—1. Does fluoroscopic work of about one hour a day (chest work) have a harmful effect on the eyes? If so, what protection should be used? 2. Is this the consensus of radiologic opinion? H. L. Garland in an article entitled "Fluoroscopy in the Diagnosis of Pulmonary Tuberculosis" (*Am. Rev. Tuberc.* 45:2 [Jan.] 1942) says "It is the scattered radiation which most of us should beware of, and this can best be diminished by using small beams and working fast. Conventional lead aprons and gloves are of little use in chest work." Would it then be as well to discard the cumbersome gloves and lead apron?

M.D., California.

ANSWER.—1. It is generally understood that the delicate and highly specialized tissues of the eye are not more sensitive to x-rays than the external facial structures. But few cases of iritis have developed in x-ray workers. All fluoroscopic work, however, involves eyestrain in the common sense.

2. On account of the small amount of scattered radiation present in the chest fluoroscopy, protective gloves and aprons have not been generally discarded. A dental film carried in the vest pocket for a week tells whether a particular worker is unduly exposed.

ORCHIECTOMY IN CARCINOMA OF THE PROSTATE

To the Editor:—In Queries and Minor Notes in The Journal, March 17, a reference to castration as treatment of carcinoma of the prostate was made. Would you advise that a man aged 84 with a carcinoma of the prostate with acute retention treated by transurethral resection and high voltage roentgen rays with complete relief of the symptoms now have a castration done to retard the return of symptoms? The diagnosis of carcinoma was confirmed by microscopic examination of tissue removed by resection.

M.D., North Carolina.

ANSWER.—The indications for orchiectomy in a case of carcinoma of the prostate have not yet been defined. According to some urologists orchiectomy should be performed in every case of prostatic carcinoma. Others believe that one or more of the following factors should be present before orchiectomy is carried out: evidence of local or distant extension of the neoplasm, pain, urinary obstructive symptoms, cachexia and edema of the lower extremities. Theoretically, orchiectomy should retard the return of symptoms, but this has not yet been proved. Because of its slow growing characteristics in very aged men, carcinoma of the prostate is usually well tolerated by such patients. It would not seem advisable to perform orchiectomy on a patient aged 84 years who had received complete relief from symptoms by transurethral resection and roentgen therapy.

TREATMENT OF TABES DORSALIS

To the Editor.—A woman with tabes dorsalis was completely paralyzed one year ago from the waist down, but at present she has developed control of her bowels and kidneys and can walk fairly well. Do you think diathermy, short wave or a general "fever therapy" treatment would be indicated? If so, is there some public institution in this district where she may obtain such treatments? She is virtually without funds. What other treatment would you advise? She has had all the usual types of treatment such as neoarsphenamine, bismuth compound and mapharsen.

W. B. Chapman, M.D., Joplin, Mo.

ANSWER.—This question poses a very difficult problem, from both economic and medical points of view.

The first consideration is the accuracy of the diagnosis of tabes dorsalis. Complete paralysis of the legs does not occur in this disease unless other complicating features are present. Does the inquirer mean, not that the legs were completely paralyzed, but that they were so ataxic as to be unusable?

What, if any, treatment should be given from this point on would depend on detailed information, which is not supplied. It would be desirable to have the patient examined by a neurologist and to have available the results of recent blood and spinal fluid examinations. It is also desirable to know what, if any, complicating diseases are present.

If the patient has tabes which is still progressive, in spite of treatment, and if there are no contraindications in her general physical condition, fever therapy preferably with induced malaria is probably desirable. Since the patient is virtually without funds and therefore presumably unable to pay the cost of hospitalization, information as to the institution in which fever therapy can be administered may be obtained from the venereal disease control officer of the Missouri State Health Department, Jefferson City.

If the patient's disability is actually due to severe ataxia rather than to muscular weakness residual on paralysis of some nature, it is, however, probable that neither fever therapy nor any other form of antisyphilitic treatment will materially improve the situation, and the best to be expected is arrest of the process at its present level. Under these circumstances a great deal can be accomplished by several years of painstaking physical therapy and reeducation by the Frenkel system at the hands of a physical therapist skilled in this method. Unfortunately, this is also difficult to arrange for patients without funds.

TREATMENT OF VITILIGO

To the Editor:—Kindly send information on the therapy of vitiligo with special reference to a stain to cover the blemish and the latest in vitamin or other therapy.

M.D., Wisconsin.

ANSWER.—In the treatment of vitiligo, small areas may be colored with a solution consisting of sufficient bismarck brown, sufficient henna, carmine 5 per cent, fluidextract of walnut (Juglans Nigra) 20 per cent, aromatic spirit of ammonia 25 per cent and sufficient alcohol to make 100 per cent, which is applied coat on coat until the desired color is obtained. In some cases stimulation of pigment formation may take place after painting the lesions with 10 per cent of oil of bergamot in alcohol and then exposing the area to the quartz light. Vitamin C in large doses and injections of gold sodium thiosulfate in addition to many other measures have been recommended. Systemic treatment consists in the correction of any endocrine or metabolic disorders and the administration of iron or arsenic tonics. Yang (*Acta dermat. venereol.* **21**:657 [Nov.] 1940) treated a group of cases with a gold preparation (lopion) given intradermally.

ISOPROPYL ALCOHOL FOR STERILIZATION OF METAL INSTRUMENTS

To the Editor:—In view of the shortage of ethyl alcohol, I should like to know if isopropyl alcohol is just as effective for purposes of sterilization of metal instruments. What percentage by weight or by volume would be required? The medicated ethyl alcohols on the market are either highly perfumed or contain ingredients which are sometimes irritating or have an unpleasant odor.

E. William Abramowitz, M.D., New York.

ANSWER.—Isopropyl alcohol is a somewhat stronger germicide against vegetative forms than is ethyl alcohol. In addition it has advantages of lower surface tension and greater fat solvent action. The maximum bactericidal concentration of isopropyl alcohol is full strength, as compared with a maximum bactericidal concentration of 70 per cent by weight for ethyl alcohol. The best grades of commercial isopropyl alcohol are said to be 98 to 99 per cent. The small water content of these solutions renders them less corrosive for metal instruments than the 70 per cent ethyl alcohol solution.

Unfortunately, however, neither ethyl nor isopropyl alcohol can be depended on to kill spores. Brewer (THE JOURNAL, May 20, 1939, p. 2009) has shown that scalpels are frequently contaminated with sporulating pathogenic micro-organisms. That is probably true also of needles, scissors and other instruments which come into contact with skin. Immersion in isopropyl alcohol for several hours, or even several days, is not a trustworthy method of sterilizing such instruments.

Isopropyl alcohol is sold at present in unadulterated form, which is not irritating to the operator's hands or patient's skin.

SENSITIVITY TO THYROID PRODUCTS

To the Editor:—A woman aged 52 has been suffering for a number of years from severe attacks of bronchial asthma. She also has a basal metabolic rate of minus 30 and presents symptoms of hypothyroidism, such as excessive gain in weight and tiredness. Whenever she takes thyroid she gets a spell of asthma, which lasts four to five days. Cutaneous tests showed her to be sensitive to fish products. I have tried all kinds of thyroid preparations without any success. Please advise me what to do to desensitize her against thyroid medication, which she needs very badly.

M.D., Colorado.

ANSWER.—The inquiry does not state whether the patient is sensitive to the animal source from which thyroid is obtained. In order to catalogue this patient properly, the following procedures are advised: Tests should be made with muscle protein of beef and pork, and also with thyroid extracts of these animals. If reactions are obtained with the thyroid and not with the other

protein, this case may constitute an instance of organ specificity and no thyroid extract would be tolerated. If reactions are obtained to the muscle protein, it is possible that one can obtain for this patient a thyroid which originates from an animal to which the patient is not sensitive. It is also possible that pure thyroxine may be tolerated.

In case it becomes necessary to desensitize to thyroid, the procedure should be as follows: small doses, beginning perhaps with 0.01 grain (0.00065 Gm.), are given daily by mouth and increased gradually. It is possible that in this way sufficient tolerance to a therapeutic dose of thyroid extract may be obtained within a number of weeks.

DYSMENORRHEA DUE TO CERVICAL STENOSIS

To the Editor:—**A girl aged 18 is normal in every respect except for severe and debilitating menstrual cramps, which usually occur the whole of the first day of her period. A pelvic examination revealed nothing unusual except an anteflexion of the uterus and a cervical stenosis, which has been broken by one dilation. Would you suggest repeated dilations for this condition? Glandular products seem to have not the slightest effect on her pain.**

William B. Brown, M.D., Columbia, Mo.

ANSWER.—It does not often happen that cervical stenosis with or without anteflexion of the uterus is the cause of severe dysmenorrhea. No mention is made of whether or not part of the menstrual pain was relieved by the one dilation. If partial relief was obtained, it is distinctly worth while dilating the strictured cervix; but this should be done thoroughly under a local or general anesthetic, using Hegar dilators up to No. 10 if this can be done without using too much force. If excessive distention of the cervix is performed, scars may result from cervical lacerations and these may be worse than the patient's present or past stenosis. Dilation of the cervical canal usually gives relief from dysmenorrhea, but it is nearly always temporary. However, if a distinct stricture is the cause of the severe pain and the stricture is overcome by dilation but without producing scar tissue, the outlook for a cure is good.

POSSIBLE DERMATITIS FROM EAR PHONES

To the Editor:—**Does more or less daily contact with bakelite telephones, such as are used by telephone operators, ever lead to the production of cutaneous lesions involving the ears? Have any cases been reported in which serious cutaneous lesions have occurred among telephone operators which could be traced to their occupations?**

M.D., California.

ANSWER.—A few cases of ear dermatitis due to telephones have been reported in the medical literature. Kissmeyer (*Arch. f. Dermat. u. Syph.* **140**:357, 1922) and Stein (*Wien. klin. Wchnschr.* **37**:1069, 1924) believed that the cause might be in the type of varnish which at that time was used on some ear phones. Eller (*Arch. Dermat. & Syph.* **22**:268 [Aug.] 1930) suggested a localized skin sensitiveness as the basis of a case which he reported. The small number of cases reported, as compared with the thousands of constant users of ear phones in radio and telephone communications, would suggest no direct occupational hazard. All the predisposing and contributory factors in dermatitis, such as uncleanliness, previous or present cutaneous diseases and allergic or hypersensitive conditions in some persons, must be taken into consideration.

TREATMENT OF ENURESIS

To the Editor:—**Please outline the treatment for enuresis for an 11 year old boy.**

W. E. Scott, M.D., Lexington, Ill.

ANSWER.—First any irritation or abnormalities of the genitourinary tract are to be excluded. In cases of pronounced polyuria, diabetes mellitus or insipidus or renal involvement has to be excluded. For an 11 year old boy the first thing is to arrange activity and rest according to his individual needs. Sometimes it may be advantageous to put the patient to bed for a few days to a week, sometimes with mild sedation. If possible a nap should be taken. It is usually well to adopt a method of withholding fluid as much as possible from 3 or 4 p. m. and to give a dry supper. In cases in which the functional capacity of the bladder is diminished definitely, the administration of atropine often gives good results. Another simple procedure is to give before retiring about 1 teaspoon (4 cc.) of table salt with a little jam or peanut butter and a cracker, allowing no fluid or as little as possible. Sometimes good results are obtained by getting the child up at definite periods for voiding. It is important that the patient be awake. Another procedure, which can be combined with others, is to make the patient start and stop urinating at command a few times a day. These are not all the methods of treatment. Corporal punishment, frank or disguised, is usually not efficient. It is necessary to get the cooperation of the patient, which is not always easy, since many children are not sufficiently interested to overcome their difficulties, if the treatment is disagreeable to them, although they claim a sincere desire to get rid of their ailment.

SENSITIVITY TO ANESTHETIC AGENTS

To the Editor:—**What can be done to prevent the headache in a surgeon or anesthetist which develops whenever ether is being employed as the anesthetic in an operation?**

M.D., New Jersey.

ANSWER.—Drug allergy, or sensitivity to the contact of certain agents, is rare but well recognized. W. W. Duke (*J. Allergy* **3**:495 [July] 1932) describes "a youth of atopic strain who had coryza, cough and asthma whenever he was exposed to the fumes of ether. . . . A drop of ether applied to the skin caused a typical wheal." A surgeon (not previously reported) has been observed to suffer headache and nausea whenever the inhaled atmosphere contained even small concentrations of ethylene.

To reduce the concentration of ether in the atmosphere of a room where a sensitive person must work, the carbon dioxide absorption technic should be utilized (Waters, R. M.: Clinical Scope and Utility of Carbon Dioxide Filtration in Inhalation Anesthesia, *Anesth. & Analg.* **3**:20 [Feb.] 1924; Carbon Dioxide Absorption from Anesthetic Atmospheres, Proc. Roy. Soc. Med. **30**:1 [Oct. 2] 1936). If leaks are prevented and great care is taken to empty the closed system outside the room at the completion of the operation, comfortable working conditions for the sensitive person may be secured.

The alternative is, of course, the use of other agents to which there is no sensitivity.

SURGICAL INTERVENTIONS IN PARKINSONISM

To the Editor:—**May I ask What is the underlying rationale of operation for Parkinson's disease? What is the nature of R. B. Klemme's operation?**

F. O. Kershner, M.D., Clinton, Iowa.

ANSWER.—All surgical treatment of parkinsonism must still be regarded as in the experimental stage. In all, four different operative procedures have been used with some measure of success. Meyers (*Arch. Neurol. & Psychiat.* **44**:455 [Aug.] 1940) has removed the head of the caudate nucleus and removed or sectioned various other parts of the basal ganglions. The exact anatomic and physiologic basis for these procedures is not understood. Bucy (*ibid.* **41**:721 [April] 1939) has removed the precentral motor cortex with complete abolition of the tremor, and Putman (*ibid.* **44**:950 [Nov.] 1940) has obtained satisfactory results in sectioning the pyramidal tract in the spinal cord. In both instances it is believed that the corticospinal motor tracts transmit the nervous impulses which cause the tremor and that the tremor is therefore abolished when these tracts are interrupted. Klemme has removed the cerebral cortex from the frontal lobe anterior to the location of Bucy's extirpations. However, the details of Klemme's operative procedure have never been published, and the basis for the operation is therefore not clear.

Any one interested further in these problems is referred to the recently published Proceeding of the Association for Research in Nervous and Mental Disease for 1940, volume 21, published by the Williams & Williams Company, Baltimore, 1942. All of the authors mentioned have therein discussed their operative experiences and the results in considerable detail. This volume also contains numerous other papers on anatomy, physiology, pathology and medical treatment of parkinsonism and related diseases.

INGROWING HAIRS

To the Editor:—**On the subject "Ingrowing Hairs," discussed in Queries and Minor Notes of the June 6, 1942 issue, I have observed that, in case of the beards of some other men and particularly in case of my own beard, close shaving often results in ingrowing hairs. This result is not at all surprising. The skin is a soft, resilient tissue, but the hairs are stiff shafts and many of them grow at a slant. Rubbing the face with lather tends to push the hairs through the skin to their maximum length and the edge of the razor, if pressed against the skin sufficiently, easily cuts them off below the level of the skin. Two large elements in the extent to which this result takes place are the slanting of the hairs and the dulness of the razor. The more slanting the hairs are and the duller the razor is, the more easily are the hairs amputated below the skin level. A dull razor must be pressed against the skin and hairs in order to cut the latter at all and may cut even an erectly growing hair too short. And even a sharp razor may cut a slanting hair too short. The hairs on my neck grow flat toward the right, and I have always had a sore neck after allowing a barber to shave me, but I shave myself every day and rarely have a single ingrowing hair or irritated skin.**

George E. Barnes, M.D., Herkimer, N. Y.